JUN 0 4 2004 y

GC773-2-seqlist

SEQUENCE LISTING

Day, Anthony G. Estell, David A. Lyons, Eric H. Yao, Jian

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GC773-2-seqlist Trp Glu Arg Lys Ile Ser Gln Val Thr Asp Lys Glu Ala Ala Cys Leu 500 510 Pro Leu Lys Lys Thr Asn Asp Gln His Ala Leu Ser Asn Glu Lys Pro 515 520 525 Ser Leu Thr Ser Cys Ser Val Gly Asp Ala Ala Ser Ala Glu Thr Ala Ser Val Thr His Pro Lys Asp Ile Ser Val Ala Pro Arg Thr Leu Ser Gln Asp Thr Ala Val Thr His Gly Asp His Leu Leu Ser Gly Pro Lys Gly Leu Val Asp Asn Ile Leu Pro Leu Thr Leu Glu Glu Thr Ile Gln Lys Thr Ala Ser Val Ser Gln Leu Asn Ser Glu Ala Phe Leu Leu Glu Asn Lys Pro Val Ala Glu Asn Thr Gly Ile Leu Lys Thr Asn Thr Leu Leu Ser Gln Glu Ser Leu Met Ala Ser Ser Val Ser Ala Pro Cys Asn Glu Lys Leu Ile Gln Asp Gln Phe Val Asp Ile Ser Phe Pro Ser Gln Val Val Asn Thr Asn Met Gln Ser Val Gln Leu Asn Thr Glu Asp Thr Val Asn Thr Lys Ser Val Asn Asn Thr Asp Ala Thr Gly Leu Ile Gln Gly Val Lys Ser Val Glu Ile Glu Lys Asp Ala Gln Leu Lys Gln Phe Leu Thr Pro Lys Thr Glu Gln Leu Lys Pro Glu Arg Val Thr Ser Gln Val Ser Asn Leu Lys Lys Lys Glu Thr Thr Ala Asp Ser Gln Thr Lys Ser Leu Gln Asn Gln Ser Leu Lys Glu Asn Gln Lys Lys Pro Phe Val Gly Ser Trp Val Lys Gly Leu Ile Ser Arg Gly Ala Ser Phe Met Pro Leu Cys Val Ser Ala His Asn Arg Asn Thr Ile Thr 770 775 780 Asp Leu Gln Pro Ser Val Lys Gly Val Asn Asn Phe Gly Gly Phe Lys Thr Lys Gly Ile Asn Gln Lys Ala Ser His Val Ser Lys Lys Ala Arg Lys Ser Ala Ser Lys Pro Pro Ile Ser Lys Pro Pro Ala Gly Pro Pro Ser Ser Asn Gly Thr Ala Ala His Pro His Ala His Ala Ala Ser Glu Val Leu Glu Lys Ser Gly Ser Thr Ser Cys Gly Ala Gln Leu Asn His Ser Ser Tyr Gly Asn Gly Ile Ser Ser Ala Asn His Glu Asp Leu Val Glu Gly Gln Ile His Lys Leu Arg Leu Lys Leu Arg Lys Lys Leu Lys Ala Glu Lys Lys Leu Ala Ala Leu Met Ser Ser Pro Gln Ser Arg Thr Val Arg Ser Glu Asn Leu Glu Gln Val Pro Gln Asp Gly Ser Pro Asn Asp Cys Glu Ser Ile Glu Asp Leu Asn Glu Leu Pro Tyr Pro Ile Asp Ile Ala Ser Glu Ser Ala Cys Thr Thr Val Pro Gly Val Ser Leu Tyr Ser Ser Gln Thr His Glu Glu Ile Leu Ala Glu Leu Leu Ser Pro Thr Pro Val Ser Thr Glu Leu Ser Glu Asn Gly Glu Gly Asp Phe Arg Tyr Leu Gly Met Gly Asp Ser His Ile Pro Pro Pro Val Pro Ser

GC773-2-seqlist 1000 1005 995 Glu Phe Asn Asp Val Ser Gln Asn Thr His Leu Arg Gln Asp His Asn 1020 1015 Tyr Cys Ser Pro Thr Lys Lys Asn Pro Cys Glu Val Gln Pro Asp Ser 1030 1035 Leu Thr Asn Asn Ala Cys Val Arg Thr Leu Asn Leu Glu Ser Pro Met 1045 1050 Lys Thr Asp Ile Phe Asp Glu Phe Phe Ser Ser Ser Ala Leu Asn Ala 1060 1065 1070 Leu Ala Asn Asp Thr Leu Asp Leu Pro His Phe Asp Glu Tyr Leu Phe 1075 1080 1085 Glu Asn Tyr

1055

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1090

1010

1025

<213> Homo sapiens

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145 150 155 160 Asp Cys Glu Lys Arg Ile Thr Ser Cys Lys Gly Ala Gln Ala Asp Val 165 170 175 165 Val Leu Phe Phe Ile His Gly Val Gly Gly Ser Leu Ala Ile Trp Lys 185 Glu Gln Leu Asp Phe Phe Val Arg Leu Gly Tyr Glu Val Val Ala Pro 20Õ 205 195 Asp Leu Ala Gly His Gly Ala Ser Ser Ala Pro Gln Val Ala Ala Ala 220 210 215 Tyr Thr Phe Tyr Ala Leu Ala Glu Asp Met Arg Ala Ile Phe Lys Arg 225 230 235 240 Tyr Ala Lys Lys Arg Asn Val Leu Ile Gly His Ser Tyr Gly Val Ser 250 245 Phe Cys Thr Phe Leu Ala His Glu Tyr Pro Asp Leu Val His Lys Val 265 270 260 Ile Met Ile Asn Gly Gly Gly Pro Thr Ala Leu Glu Pro Ser Phe Cys 275 280 285 Ser Ile Phe Asn Met Pro Thr Cys Val Leu His Cys Leu Ser Pro Cys 290 295 300 Leu Ala Trp Ser Phe Leu Lys Ala Gly Phe Ala Arg Gln Gly Ala Lys 305 310 315 320 320 Glu Lys Gln Leu Leu Lys Glu Gly Asn Ala Phe Asn Val Ser Ser Phe 325 330 Val Leu Arg Ala Met Met Ser Gly Gln Tyr Trp Pro Glu Gly Asp Glu Page 25

_GC773-2-seq11st 345 350 Val Tyr His Ala Glu Leu Thr Val Pro Val Leu Leu Val His Gly Met 355 360 365 His Asp Lys Phe Val Pro Val Glu Glu Asp Gln Arg Met Ala Glu Ile 38Ŏ 375 Leu Leu Leu Ala Phe Leu Lys Leu Ile Asp Glu Gly Ser His Met Val 390 395 Met Leu Glu Cys Pro Glu Thr Val Asn Thr Leu Leu His Glu Phe Leu 410 405 Leu Trp Glu Pro Glu Pro Ser Pro Lys Ala Leu Pro Glu Pro Leu Pro 425 Ala Pro Pro Glu Asp Lys Lys 435 <210> 27 <211> 514 <212> PRT

<213> Homo sapiens

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GC773-2-seq11st 345 Cys Pro Tyr Asp Ile Ala Val Val Ser Leu Glu Glu Asp Leu Asp Asp 355 360 365 Val Pro Ile Pro Val Pro Ala Glu His Phe His Glu Gly Glu Ala Val 375 380 Ser Val Val Gly Phe Gly Val Phe Gly Gln Ser Cys Gly Pro Ser Val 395 390 Thr Ser Gly Ile Leu Ser Ala Val Val Gln Val Asn Gly Thr Pro Val 405 410 Met Leu Gln Thr Thr Cys Ala Val His Ser Gly Ser Ser Gly Gly Pro 430 425 Leu Phe Ser Asn His Ser Gly Asn Leu Leu Gly Ile Ile Thr Ser Asn 440 435 Thr Arg Asp Asn Asn Thr Gly Ala Thr Tyr Pro His Leu Asn Phe Ser 455 460 Ile Pro Ile Thr Val Leu Gln Pro Ala Leu Gln Gln Tyr Ser Gln Thr 475 470 Gln Asp Leu Gly Gly Leu Arg Glu Leu Asp Arg Ala Ala Glu Pro Val 485 490 495 Arg Val Val Trp Arg Leu Gln Arg Pro Leu Ala Glu Ala Pro Arg Ser 505 500

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115 120 125 _____ Lys Trp Arg Lys Asp Val Leu Ser Ile Ile Asp Asp Leu Ala Asp Gly 130 140 135 Pro Gln Ile Leu Val Gly Ser Ser Leu Gly Gly Trp Leu Met Leu His 150 Ala Ala Ile Ala Arg Pro Glu Lys Val Val Ala Leu Ile Gly Val Ala 175 165 170 Thr Ala Asp Thr Leu Val Thr Lys Phe Asn Gln Leu Pro Val Glu Leu 190 185 180 Lys Lys Glu Val Glu Met Lys Gly Val Trp Ser Met Pro Ser Lys Tyr 195 200 205 Ser Glu Glu Gly Val Tyr Asn Val Gln Tyr Ser Phe Ile Lys Glu Ala 210 215 220 Glu His His Cys Leu Leu His Ser Pro Ile Pro Val Asn Cys Pro Ile 235 230 Arg Leu Leu His Gly Met Lys Asp Asp Ile Val Pro Trp His Thr Ser 250 Met Gln Val Ala Asp Arg Val Leu Ser Thr Asp Val Asp Val Ile Leu Page 27

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GC773-2-seqlist
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Asn
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            20
Leu Gln Asn Met Val Lys Phe Pro Leu Thr Gly Leu Asp Met Thr Pro
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His Val Val Lys Arg Ser Gln Ser Ser Trp Ser Leu Pro Ser His Trp 50 55 60
Ser Pro Trp Arg Arg Pro Tyr Gly Leu Gly Arg Asp Pro Glu Asp Tyr 65 70 75 80
                    70
Ile Tyr Asp Leu Tyr Ala Val Cys Asn His His Gly Thr Met Gln Gly
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Gly His Tyr Thr Ala Tyr Cys Lys Asn Ser Val Asp Gly Leu Trp Tyr
            100
                                  105
                                                       110
Cys Phe Asp Asp Ser Asp Val Gln Gln Leu Ser Glu Asp Glu Val Cys
115 120 125
Thr Gln Thr Ala Tyr Ile Leu Phe Tyr Gln Arg Arg Thr Ala Ile Pro
                         135
Ser Trp Ser Ala Asn Ser Ser Val Ala Gly Ser Thr Ser Ser Ser Leu
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                                          155
Cys Glu His Trp Val Ser Arg Leu Pro Gly Ser Lys Pro Ala Ser Val
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                                                           175
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Thr Ser Ala Ala Ser Ser Arg Arg Thr Ser Leu Ala Ser Leu Ser Glu
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                                                       190
Ser Val Glu Met Thr Gly Glu Arg Ser Glu Asp Asp Gly Gly Cys Phe
                                                   205
                              20Ŏ
Ser Thr Arg Pro Phe Val Arg Ser Val Gln Arg Gln Ser Leu Ser Ser
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Arg Ser Ser Val Thr Ser Pro Leu Ala Val Asn Glu Asn Cys Met Arg
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Pro Ser Trp Ser Leu Ser Ala Lys Leu Gln Met Arg Ser Asn Ser Pro
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Ser Arg Phe Ser Gly Asp Ser Pro Ile His Ser Ser Ala Ser Thr Leu
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Glu Lys Ile Gly Glu Ala Ala Asp Asp Lys Val Ser Ile Ser Cys Phe
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Gly Ser Leu Arg Asn Leu Ser Ser Ser Tyr Gln Glu Pro Ser Asp Ser
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                                               300
His Ser Leu Arg Glu His Lys Ala Val Gly Arg Ala Pro Leu Ala Val
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Met Glu Gly Val Phe Lys Asp Glu Ser Asp Thr Arg Arg Leu Asn Ser
325 330 335
Ser Val Val Asp Thr Gln Ser Lys His Ser Ala Gln Gly Asp Arg Leu
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Pro Pro Leu Ser Gly Pro Phe Asp Asn Asn Asn Gln Ile Ala Tyr Val
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370 375 380
Pro Ser His Pro Gly Ser Leu Ala Lys Lys Pro Glu Ser Thr Thr Lys
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GC773-2-seqlist 390 395 Arg Ser Pro Ser Ser Lys Gly Thr Ser Glu Pro Glu Lys Ser Leu Arg
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GC773-2-seqlist Gly Leu Leu Leu Val Gly Ala Ser Val Leu Gln Cys Leu Ala Thr Gly 490 485 Asn Trp Asn Ser Val Pro Pro Glu Cys Gln Ala Ile Pro Cys Thr Pro 500 505 510 Leu Leu Ser Pro Gln Asn Gly Thr Met Thr Cys Val Gln Pro Leu Gly 515 520 Ser Ser Ser Tyr Lys Ser Thr Cys Gln Phe Ile Cys Asp Glu Gly Tyr 540 535 Ser Leu Ser Gly Pro Glu Arg Leu Asp Cys Thr Arg Ser Gly Arg Trp 550 555 560 545 Thr Asp Ser Pro Pro Met Cys Glu Ala Ile Lys Cys Pro Glu Leu Phe 570 575 565 Ala Pro Glu Gln Gly Ser Leu Asp Cys Ser Asp Thr Arg Gly Glu Phe 585 Asn Val Gly Ser Thr Cys His Phe Ser Cys Asp Asn Gly Phe Lys Leu 605 595 600 Glu Gly Pro Asn Asn Val Glu Cys Thr Thr Ser Gly Arg Trp Ser Ala 615 620 Thr Pro Pro Thr Cys Lys Gly Ile Ala Ser Leu Pro Thr Pro Gly Val 625 630 635 Gln Cys Pro Ala Leu Thr Thr Pro Gly Gln Gly Thr Met Tyr Cys Arg 645 650 655 His His Pro Gly Thr Phe Gly Phe Asn Thr Thr Cys Tyr Phe Gly Cys 660 665 Asn Ala Gly Phe Thr Leu Ile Gly Asp Ser Thr Leu Ser Cys Arg Pro 675 680 685 Ser Gly Gln Trp Thr Ala Val Thr Pro Ala Cys Arg Ala Val Lys Cys 700 695 690 Ser Glu Leu His Val Asn Lys Pro Ile Ala Met Asn Cys Ser Asn Leu 715 720 710 Trp Gly Asn Phe Ser Tyr Gly Ser Ile Cys Ser Phe His Cys Leu Glu
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565 570 575 Glu Lys Tyr Val His Gly Val Arg Tyr Gln Cys Tyr Cys Tyr Gly Arg 585 590 Gly Ile Gly Glu Trp His Cys Gln Pro Leu Gln Thr Tyr Pro Ser Ser Page 33

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Ser Gly Pro Val Glu Val Phe Ile Thr Glu Thr Pro Ser Gln Pro Asn Ser His Pro Ile Gln Trp Asn Ala Pro Gln Pro Ser His Ile Ser Lys Tyr Ile Leu Arg Trp Arg Pro Lys Asn Ser Val Gly Arg Trp Lys Glu Ala Thr Ile Pro Gly His Leu Asn Ser Tyr Thr Ile Lys Gly Leu Lys Pro Gly Val Val Tyr Glu Gly Gln Leu Ile Ser Ile Gln Gln Tyr Gly His Gln Glu Val Thr Arg Phe Asp Phe Thr Thr Thr Ser Thr Ser Thr Pro Val Thr Ser Asn Thr Val Thr Gly Glu Thr Thr Pro Phe Ser Pro Leu Val Ala Thr Ser Glu Ser Val Thr Glu Ile Thr Ala Ser Ser Phe Val Val Ser Trp Val Ser Ala Ser Asp Thr Val Ser Gly Phe Arg Val 740 745 750 Glu Tyr Glu Leu Ser Glu Glu Gly Asp Glu Pro Gln Tyr Leu Asp Leu Pro Ser Thr Ala Thr Ser Val Asn Ile Pro Asp Leu Leu Pro Gly Arg 770 780 Lys Tyr Ile Val Asn Val Tyr Gln Ile Ser Glu Asp Gly Glu Gln Ser Leu Ile Leu Ser Thr Ser Gln Thr Thr Ala Pro Asp Ala Pro Pro Asp Thr Thr Val Asp Gln Val Asp Asp Thr Ser Ile Val Val Arg Trp Ser Arg Pro Gln Ala Pro Ile Thr Gly Tyr Arg Ile Val Tyr Ser Pro Ser Val Glu Gly Ser Ser Thr Glu Leu Asn Leu Pro Glu Thr Ala Asn Ser Val Thr Leu Ser Asp Leu Gln Pro Gly Val Gln Tyr Asn Ile Thr Ile Tyr Ala Val Glu Glu Asn Gln Glu Ser Thr Pro Val Val Ile Gln Gln Glu Thr Thr Gly Thr Pro Arg Ser Asp Thr Val Pro Ser Pro Arg Asp 900 905 910 Leu Gln Phe Val Glu Val Thr Asp Val Lys Val Thr Ile Met Trp Thr Pro Pro Glu Ser Ala Val Thr Gly Tyr Arg Val Asp Val Ile Pro Val Asn Leu Pro Gly Glu His Gly Gln Arg Leu Pro Ile Ser Arg Asn Thr Phe Ala Glu Val Thr Gly Leu Ser Pro Gly Val Thr Tyr Tyr Phe Lys Val Phe Ala Val Ser His Gly Arg Glu Ser Lys Pro Leu Thr Ala Gln Gln Thr Thr Lys Leu Asp Ala Pro Thr Asn Leu Gln Phe Val Asn Glu Thr Asp Ser Thr Val Leu Val Arg Trp Thr Pro Pro Arg Ala Gln Ile Thr Gly Tyr Arg Leu Thr Val Gly Leu Thr Arg Arg Gly Gln Pro Arg 1025 1030 1035 104 Gln Tyr Asn Val Gly Pro Ser Val Ser Lys Tyr Pro Leu Arg Asn Leu Gln Pro Ala Ser Glu Tyr Thr Val Ser Leu Val Ala Ile Lys Gly Asn Gln Glu Ser Pro Lys Ala Thr Gly Val Phe Thr Thr Leu Gln Pro Gly Ser Ser Ile Pro Pro Tyr Asn Thr Glu Val Thr Glu Thr Thr Ile Val Page 34

GC773-2-seqlist Ile Thr Trp Thr Pro Ala Pro Arg Ile Gly Phe Lys Leu Gly Val Arg Pro Ser Gln Gly Glu Ala Pro Arg Glu Val Thr Ser Asp Ser Gly 1125 1130 1135 Ser Ile Val Val Ser Gly Leu Thr Pro Gly Val Glu Tyr Val Tyr Thr Ile Gln Val Leu Arg Asp Gly Gln Glu Arg Asp Ala Pro Ile Val Asn Lys Val Val Thr Pro Leu Ser Pro Pro Thr Asn Leu His Leu Glu Ala Asn Pro Asp Thr Gly Val Leu Thr Val Ser Trp Glu Arg Ser Thr Thr Pro Asp Ile Thr Gly Tyr Arg Ile Thr Thr Thr Pro Thr Asn Gly Gln Gln Gly Asn Ser Leu Glu Glu Val Val His Ala Asp Gln Ser Ser Cys Thr Phe Asp Asn Leu Ser Pro Gly Leu Glu Tyr Asn Val Ser Val Tyr Thr Val Lys Asp Asp Lys Glu Ser Val Pro Ile Ser Asp Thr Ile Ile Pro Ala Val Pro Pro Pro Thr Asp Leu Arg Phe Thr Asn Ile Gly Pro Asp Thr Met Arg Val Thr Trp Ala Pro Pro Pro Ser Ile Asp Leu Thr Asn Phe Leu Val Arg Tyr Ser Pro Val Lys Asn Glu Glu Asp Val Ala Glu Leu Ser Ile Ser Pro Ser Asp Asn Ala Val Val Leu Thr Asn Leu Leu Pro Gly Thr Glu Tyr Val Val Ser Val Ser Ser Val Tyr Glu Gln His Glu Ser Thr Pro Leu Arg Gly Arg Gln Lys Thr Gly Leu Asp Ser 1345 1350 1355 136 Pro Thr Gly Ile Asp Phe Ser Asp Ile Thr Ala Asn Ser Phe Thr Val His Trp Ile Ala Pro Arg Ala Thr Ile Thr Gly Tyr Arg Ile Arg His His Pro Glu His Phe Ser Gly Arg Pro Arg Glu Asp Arg Val Pro His 1395 1400 1405 Ser Arg Asn Ser Ile Thr Leu Thr Asn Leu Thr Pro Gly Thr Glu Tyr Val Val Ser Ile Val Ala Leu Asn Gly Arg Glu Glu Ser Pro Leu Leu Ile Gly Gln Gln Ser Thr Val Ser Asp Val Pro Arg Asp Leu Glu Val Val Ala Ala Thr Pro Thr Ser Leu Leu Ile Ser Trp Asp Ala Pro Ala val Thr val Arg Tyr Tyr Arg Ile Thr Tyr Gly Glu Thr Gly Gly Asn Ser Pro Val Gln Glu Phe Thr Val Pro Gly Ser Lys Ser Thr Ala Thr Ile Ser Gly Leu Lys Pro Gly Val Asp Tyr Thr Ile Thr Val Tyr Ala Val Thr Gly Arg Gly Asp Ser Pro Ala Ser Ser Lys Pro Ile Ser Ile Asn Tyr Arg Thr Glu Ile Asp Lys Pro Ser Gln Met Gln Val Thr Asp Val Gln Asp Asn Ser Ile Ser Val Lys Trp Leu Pro Ser Ser Ser Pro 1555 1560 1565 Val Thr Gly Tyr Arg Val Thr Thr Pro Lys Asn Gly Pro Gly Pro Thr Lys Thr Lys Thr Ala Gly Pro Asp Gln Thr Glu Met Thr Ile Glu Gly Leu Gln Pro Thr Val Glu Tyr Val Val Ser Val Tyr Ala Gln Asn

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Pro Ser Gly Glu Ser Gln Pro Leu Val Gln Thr Ala Val Thr Asn Ile 1620 1630 Asp Arg Pro Lys Gly Leu Ala Phe Thr Asp Val Asp Val Asp Ser Ile Lys Ile Ala Trp Glu Ser Pro Gln Gly Gln Val Ser Arg Tyr Arg Val Thr Tyr Ser Ser Pro Glu Asp Gly Ile His Glu Leu Phe Pro Ala Pro Asp Gly Glu Glu Asp Thr Ala Glu Leu Gln Gly Leu Arg Pro Gly Ser Glu Tyr Thr Val Ser Val Val Ala Leu His Asp Asp Met Glu Ser Gln Pro Leu Ile Gly Thr Gln Ser Thr Ala Ile Pro Ala Pro Thr Asp Leu Lys Phe Thr Gln Val Thr Pro Thr Ser Leu Ser Ala Gln Trp Thr Pro Pro Asn Val Gln Leu Thr Gly Tyr Arg Val Arg Val Thr Pro Lys Glu 1745 1750 1755 176 Lys Thr Gly Pro Met Lys Glu Ile Asn Leu Ala Pro Asp Ser Ser Ser val val val Ser Gly Leu Met Val Ala Thr Lys Tyr Glu val Ser Val Tyr Ala Leu Lys Asp Thr Leu Thr Ser Arg Pro Ala Gln Gly Val Val Thr Thr Leu Glu Asn Val Ser Pro Pro Arg Arg Ala Arg Val Thr Asp Ala Thr Glu Thr Thr Ile Thr Ile Ser Trp Arg Thr Lys Thr Glu Thr Ile Thr Gly Phe Gln Val Asp Ala Val Pro Ala Asn Gly Gln Thr Pro Ile Gln Arg Thr Ile Lys Pro Asp Val Arg Ser Tyr Thr Ile Thr Gly Leu Gln Pro Gly Thr Asp Tyr Lys Ile Tyr Leu Tyr Thr Leu Asn Asp Asn Ala Arg Ser Ser Pro Val Val Ile Asp Ala Ser Thr Ala Ile Asp Ala Pro Ser Asn Leu Arg Phe Leu Ala Thr Thr Pro Asn Ser Leu Leu Val Ser Trp Gln Pro Pro Arg Ala Arg Ile Thr Gly Tyr Ile Ile Lys Tyr Glu Lys Pro Gly Ser Pro Pro Arg Glu Val Val Pro Arg Pro Arg Pro Gly Val Thr Glu Ala Thr Ile Thr Gly Leu Glu Pro_Gly Thr Glu Tyr Thr Ile Tyr Val Ile Ala Leu Lys Asn Asn Gln Lys Ser Glu Pro Leu Ile Gly Arg Lys Lys Thr Asp Glu Leu Pro Gln Leu Val Thr Leu Pro His Pro Asn Leu His Gly Pro Glu Ile Leu Asp Val Pro Ser Thr Val Gln Lys Thr Pro Phe Val Thr His Pro Gly Tyr Asp Thr Gly Asn Gly Ile Gln Leu Pro Gly Thr Ser Gly Gln Gln Pro Ser Val Gly Gln 2035 2040 2045 Gln Met Ile Phe Glu Glu His Gly Phe Arg Arg Thr Thr Pro Pro Thr Thr Ala Thr Pro Ile Arg His Arg Pro Arg Pro Tyr Pro Pro Asn Val Gly Glu Glu Ile Gln Ile Gly His Ile Pro Arg Glu Asp Val Asp Tyr His Leu Tyr Pro His Gly Pro Gly Leu Asn Pro Asn Ala Ser Thr Gly

GC773-2-seqlist Gln Glu Ala Leu Ser Gln Thr Thr Ile Ser Trp Ala Pro Phe Gln Asp 2125 2120 2115 Thr Ser Glu Tyr Ile Ile Ser Cys His Pro Val Gly Thr Asp Glu Glu 2130 2135 2140 Pro Leu Gln Phe Arg Val Pro Gly Thr Ser Thr Ser Ala Thr Leu Thr 2150 2155 2160 Gly Leu Thr Arg Gly Ala Thr Tyr Asn Val Ile Val Glu Ala Leu Lys 2170 2175 2165 Asp Gln Gln Arg His Lys Val Arg Glu Glu Val Val Thr Val Gly Asn 2185 2180 2190 Ser Val Asn Glu Gly Leu Asn Gln Pro Thr Asp Asp Ser Cys Phe Asp 2205 2200 2195 Pro Tyr Thr Val Ser His Tyr Ala Val Gly Asp Glu Trp Glu Arg Met 2210 2215 2220 Ser Glu Ser Gly Phe Lys Leu Cys Gln Cys Leu Gly Phe Gly Ser 2225 2230 2235 224 2230 2240 Gly His Phe Arg Cys Asp Ser Ser Arg Trp Cys His Asp Asn Gly Val 2245 2250 2255 Asn Tyr Lys Ile Gly Glu Lys Trp Asp Arg Gln Gly Glu Asn Gly Gln 2260 2270 Met Met Ser Cys Thr Cys Leu Gly Asn Gly Lys Gly Glu Phe Lys Cys 2275 2280 2285 Asp Pro His Glu Ala Thr Cys Tyr Asp Asp Gly Lys Thr Tyr His Val 2290 2300 Gly Glu Gln Trp Gln Lys Glu Tyr Leu Gly Ala Ile Cys Ser Cys Thr 2305 2310 2315 232 Cys Phe Gly Gly Gln Arg Gly Trp Arg Cys Asp Asn Cys Arg Arg Pro 2325 2330 2335 Gly Gly Glu Pro Ser Pro Glu Gly Thr Thr Gly Gln Ser Tyr Asn Gln 2340 2350 Tyr Ser Gln Arg Tyr His Gln Arg Thr Asn Thr Asn Val Asn Cys Pro 2360 2365 2355 Ile Glu Cys Phe Met Pro Leu Asp Val Gln Ala Asp Arg Glu Asp Ser 2375 2380 2370 Arg Glu 2385 <210> 33 <211> 953 <212> PRT <213> Homo sapiens <400> 33 Arg Tyr Asn Lys Asn Leu Glu Glu Ala Lys Arg Ile Gly Ile Lys Lys 1 5 10 15 Ala Ile Thr Ala Asn Ile Ser Ile Gly Ala Ala Phe Leu Leu Ile Tyr
20 25 30 Ala Ser Tyr Ala Leu Ala Phe Trp Tyr Gly Thr Thr Leu Val Leu Ser Gly Glu Tyr Ser Ile Gly Gln Val Leu Thr Val Phe Phe Ser Val Leu 55 Ile Gly Ala Phe Ser Val Gly Gln Ala Ser Pro Ser Ile Glu Ala Phe 65 70 75 _ _ _ 80 Ala Asn Ala Arg Gly Ala Ala Tyr Glu Ile Phe Lys Ile Ile Asp Asn 85 90 95 Lys Pro Ser Ile Asp Ser Tyr Ser Lys Ser Gly His Lys Pro Asp Asn 100 105 110 Ile Lys Gly Asn Leu Glu Phe Arg Asn Val His Phe Ser Tyr Pro Ser 115 120 125

Arg Lys Glu Val Lys Ile Leu Lys Gly Leu Asn Leu Lys Val Gln Ser

Gly Gln Thr Val Ala Leu Val Gly Asn Ser Gly Cys Gly Lys Ser Thr

140

155 Page 37

135

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GC773-2-seqlist Thr Val Gln Leu Met Gln Arg Leu Tyr Asp Pro Thr Glu Gly Met Val Ser Val Asp Gly Gln Asp Ile Arg Thr Ile Asn Val Arg Phe Leu Arg Glu Ile Ile Gly Val Val Ser Gln Glu Pro Val Leu Phe Ala Thr Thr Ile Ala Glu Asn Ile Arg Tyr Gly Arg Glu Asn Val Thr Met Asp Glu Ile Glu Lys Ala Val Lys Glu Ala Asn Ala Tyr Asp Phe Ile Met Lys 225 230 235 240 Leu Pro His Lys Phe Asp Thr Leu Val Gly Glu Arg Gly Ala Gln Leu Ser Gly Gly Gln Lys Gln Arg Ile Ala Ile Ala Arg Ala Leu Val Arg Asn Pro Lys Ile Leu Leu Asp Glu Ala Thr Ser Ala Leu Asp Thr Glu Ser Glu Ala Val Val Gln Val Ala Leu Asp Lys Ala Arg Lys Gly
290 295 300 Arg Thr Thr Ile Val Ile Ala His Arg Leu Ser Thr Val Arg Asn Ala 305 310 315 320 Asp Val Ile Ala Gly Phe Asp Asp Gly Val Ile Val Glu Lys Gly Asn 325 330 335 His Asp Glu Leu Met Lys Glu Lys Gly Ile Tyr Phe Lys Leu Val Thr 340 345 350 Met Gln Asp Glu Ser Ile Pro Pro Val Ser Phe Trp Arg Ile Met Lys Leu Asn Leu Thr Glu Trp Pro Tyr Phe Val Val Gly Val Phe Cys Ala Ile Ile Asn Gly Gly Leu Gln Pro Ala Phe Ala Ile Ile Phe Ser Lys Ile Ile Gly Val Phe Thr Arg Ile Asp Asp Pro Glu Thr Lys Arg Gln Asn Ser Asn Leu Phe Ser Leu Leu Phe Leu Ala Leu Gly Ile Ile Ser Phe Ile Thr Phe Phe Leu Gln Gly Phe Thr Phe Gly Lys Ala Gly Glu Ile Leu Thr Lys Arg Leu Arg Tyr Met Val Phe Arg Ser Met Leu Arg 450 455 460 _ _ _ _ Gln Asp Val Ser Trp Phe Asp Asp Pro Lys Asn Thr Thr Gly Ala Leu Thr Thr Arg Leu Ala Asn Asp Ala Ala Gln Val Lys Gly Ala Ile Gly Ser Arg Leu Ala Val Ile Thr Gln Asm Ile Ala Asn Leu Gly Thr Gly Ile Ile Ile Ser Phe Ile Tyr Gly Trp Gln Leu Thr Leu Leu Leu Leu Ala Ile Val Pro Ile Ile Ala Ile Ala Gly Val Val Glu Met Lys Met Leu Ser Gly Gln Ala Leu Lys Asp Lys Lys Glu Leu Glu Gly Ser Gly Lys Ile Ala Thr Glu Ala Ile Glu Asn Phe Arg Thr Val Val Ser Leu Thr Gln Glu Gln Lys Phe Glu His Met Tyr Ala Gln Ser Leu Gln Val Pro Tyr Arg Asn Ser Leu Arg Lys Ala His Ile Phe Gly Ile Thr Phe 595 600 605 Ser Phe Thr Gln Ala Met Met Tyr Phe Ser Tyr Ala Gly Cys Phe Arg Phe Gly Ala Tyr Leu Val Ala His Lys Leu Met Ser Phe Glu Asp Val Leu Leu Val Phe Ser Ala Val Val Phe Gly Ala Met Ala Val Gly Gln

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Val Ser Ser Phe Ala Pro Asp Tyr Ala Lys Ala Lys Ile Ser Ala Ala

GC773-2-seq11st 665 670 660 His Ile Ile Met Ile Ile Glu Lys Thr Pro Leu Ile Asp Ser Tyr Ser 675 680 685 Thr Glu Gly Leu Met Pro Asn Thr Leu Glu Gly Asn Val Thr Phe Gly 700 690 695 Glu Val Val Phe Asn Tyr Pro Thr Arg Pro Asp Ile Pro Val Leu Gln
705 710 715 720 715 710 Gly Leu Ser Leu Glu Val Lys Lys Gly Gln Thr Leu Ala Leu Val Gly 725 730 Ser Ser Gly Cys Gly Lys Ser Thr Val Val Gln Leu Leu Glu Arg Phe
740 745 750 Tyr Asp Pro Leu Ala Gly Lys Val Leu Ile Cys Glu Leu Phe Gln Leu 760 765 Leu Asp Gly Lys Glu Ile Lys Arg Leu Asn Val Gln Trp Leu Arg Ala 775 780 His Leu Gly Ile Val Ser Gln Glu Pro Ile Leu Phe Asp Cys Ser Ile 790 795 800 785 Ala Glu Asn Ile Ala Tyr Gly Asp Asn Ser Arg Val Val Ser Gln Glu 805 810 815 805 810 Glu Ile Val Arg Ala Ala Lys Glu Ala Asn Ile His Ala Phe Ile Glu 820 825 830 Ser Leu Pro Asn Lys Tyr Ser Thr Lys Val Gly Asp Lys Gly Thr Gln 840 845 Leu Ser Gly Gly Gln Lys Gln Arg Ile Ala Ile Ala Arg Ala Leu Val 860 855 Arg Gln Pro His Ile Leu Leu Asp Glu Ala Thr Ser Ala Leu Asp 865 870 875 Thr Glu Ser Glu Lys Val Val Gln Glu Ala Leu Asp Lys Ala Arg Glu 885 890 895 Gly Arg Thr Cys Ile Val Ile Ala His Arg Leu Ser Thr Ile Gln Asn 910 900 905 Ala Asp Leu Ile Val Val Phe Gln Asn Gly Arg Val Lys Glu His Gly 925 915 920 Thr His Gln Gln Leu Leu Ala Gln Lys Gly Ile Tyr Phe Ser Met Val 930 935 940 Ser Val Gln Ala Gly Thr Lys Arg Gln 945 950 <210> 34 <211> 1537 <212> PRT <213> Homo sapiens <400> 34 Met Ser Leu Ser Phe Cys Gly Asn Asn Ile Ser Ser Tyr Asn Ile Asn Asp Gly Val Leu Gln Asn Ser Cys Phe Val Asp Ala Leu Asn Leu Val 30 20 Pro His Val Phe Leu Leu Phe Ile Thr Phe Pro Ile Leu Phe Ile Gly 40 45 Trp Gly Ser Gln Ser Ser Lys Val Gln Ile His His Asn Thr Trp Leu 50 60 ____ His Phe Pro Gly His Asn Leu Arg Trp Ile Leu Thr Phe Ala Leu Leu 65 70 75 80 Phe Val His Val Cys Glu Ile Ala Glu Gly Ile Val Ser Asp Ser Arg 85 90 95 Arg Glu Ser Arg His Leu His Leu Phe Met Pro Ala Val Met Gly Phe Val Ala Thr Thr Thr Ser Ile Val Tyr Tyr His Asn Ile Glu Thr Ser 125 120 Asn Phe Pro Lys Leu Leu Leu Ala Leu Phe Leu Tyr Trp Val Met Ala

135

Phe Ile Thr Lys Thr Ile Lys Leu Val Lys Tyr Cys Gln Ser Gly Leu

140

GC773-2-seqlist Asp Ile Ser Asn Leu Arg Phe Cys Ile Thr Gly Met Met Val Ile Leu Asn Gly Leu Leu Met Ala Val Glu Ile Asn Val Ile Arg Val Arg Arg Tyr Val Phe Phe Met Asn Pro Gln Lys Val Lys Pro Pro Glu Asp Leu Gln Asp Leu Gly Val Arg Phe Leu Gln Pro Phe Val Asn Leu Leu Ser Lys Ala Thr Tyr Trp Met Asn Thr Leu Ile Ile Ser Ala His Lys
225 _ 230 Lys Pro Ile Asp Leu Lys Ala Ile Gly Lys Leu Pro Ile Ala Met Arg Ala Val Thr Asn Tyr Val Cys Leu Lys Asp Ala Tyr Glu Glu Gln Lys Lys Lys Val Ala Asp His Pro Asn Arg Thr Pro Ser Ile Trp Leu Ala 275 _ 280 _ 285 Met Tyr Arg Ala Phe Gly Arg Pro Ile Leu Leu Ser Ser Thr Phe Arg 290 295 300 Tyr Leu Ala Asp Leu Leu Gly Phe Ala Gly Pro Leu Cys Ile Ser Gly 305 315 320 Ile Val Gln Arg Val Asn Glu Thr Gln Asn Gly Thr Asn Asn Thr Thr Gly Ile Ser Glu Thr Leu Ser Ser Lys Glu Phe Leu Glu Asn Ala Tyr Val Leu Ala Val Leu Leu Phe Leu Ala Leu Ile Leu Gln Arg Thr Phe Leu Gln Ala Ser Tyr Tyr Val Thr Ile Glu Thr Gly Ile Asn Leu Arg Gly Ala Leu Leu Ala Met Ile Tyr Asn Lys Ile Leu Arg Leu Ser Ser Asn Leu Ser Met Gly Glu Met Thr Leu Gly Gln Ile Asn Asn Leu Val Ala Ile Glu Thr Asn Gln Leu Met Trp Phe Leu Phe Leu Cys Pro Asn Leu Trp Ala Met Pro Val Gln Ile Ile Met Gly Val Ile Leu Leu Tyr Asn Leu Leu Gly Ser Ser Ala Leu Val Gly Ala Ala Val Ile Val
450 455 460 _ _ _ _ Leu Leu Ala Pro Ile Gln Tyr Phe Ile Ala Thr Lys Leu Ala Glu Ala Gln Lys Ser Thr Leu Asp Tyr Ser Thr Glu Arg Leu Lys Lys Thr Asn Glu Ile Leu Lys Gly Ile Lys Leu Leu Lys Leu Tyr Ala Trp Glu His Ile Phe Cys Lys Ser Val Glu Glu Thr Arg Met Lys Glu Leu Ser Ser Leu Lys Thr Phe Ala Leu Tyr Thr Ser Leu Ser Ser Lys Leu Leu Thr Pro Phe Phe Ala Gln Thr Phe Val Thr His Ala Tyr Ala Ser Gly Asn Asn Leu Lys Pro Ala Glu Ala Phe Ala Ser Leu Ser Leu Phe His Ile Leu val Thr Pro Leu Phe Leu Leu Ser Thr Val Val Arg Phe Ala Val Lys Ala Ile Ile Ser Val Gln Lys Leu Asn Glu Phe Leu Leu Ser Asp 595 600 605 Glu Ile Gly Asp Asp Ser Trp Arg Thr Gly Glu Ser Ser Leu Pro Phe Glu Ser Cys Lys Lys His Thr Gly Val Gln Pro Lys Thr Ile Asn Arg Lys Gln Pro Gly Arg Tyr His Leu Asp Ser Tyr Glu Gln Ser Thr Arg

GC773-2-seqlist Arg Leu Arg Pro Ala Glu Thr Glu Asp Ile Ala Ile Lys Val Thr Asn Gly Tyr Phe Ser Trp Gly Ser Gly Leu Ala Thr Leu Ser Asn Ile Asp Ile Arg Ile Pro Thr Gly Gln Leu Thr Met Ile Val Gly Gln Val Gly 69Ō Cys Gly Lys Ser Ser Leu Leu Leu Ala Ile Leu Gly Glu Met Gln Thr Leu Glu Gly Lys Val His Trp Ser Lys Tyr Val Tyr Phe Tyr Arg Asn Arg Tyr Ser Val Ala Tyr Ala Ala Gln Lys Pro Trp Leu Leu Asn Ala Thr Val Glu Glu Asn Ile Thr Phe Gly Ser Pro Phe Asn Lys Gln Arg Lys Ala Val Thr Asp Ala Cys Ser Leu Gln Pro Asp Ile Asp Leu Leu Pro Phe Gly Asp Gln Thr Glu Ile Gly Glu Arg Gly Ile Asn Leu Ser Gly Gly Gln Arg Gln Arg Ile Cys Val Ala Arg Ala Leu Tyr Gln Asn Thr Asn Ile Val Phe Leu Asp Asp Pro Phe Ser Ala Leu Asp Ile 820 825 830 His Leu Ser Asp His Leu Met Gln Glu Gly Ile Leu Lys Phe Leu Gln Asp Asp Lys Arg Thr Leu Val Leu Val Thr His Lys Leu Gln Tyr Leu Thr His Ala Asp Trp Ile Ile Ala Met Lys Asp Gly Ser Val Leu Arg Glu Gly Thr Leu Lys Asp Ile Gln Thr Lys Asp Val Glu Leu Tyr Glu 885 890 895 His Trp Lys Thr Leu Met Asn Arg Gln Asp Gln Glu Leu Glu Lys Asp Met Glu Ala Asp Gln Thr Thr Leu Glu Arg Lys Thr Leu Arg Arg Ala Met Tyr Ser Arg Glu Ala Lys Ala Gln Met Glu Asp Glu Asp Glu Glu Glu Glu Glu Glu Asp Glu Asp Asp Asn Met Ser Thr Val Met Arg Leu Arg Thr Lys Met Pro Trp Lys Thr Cys Trp Arg Tyr Leu Thr Ser 965 970 975 Gly Gly Phe Phe Leu Leu Ile Leu Met Ile Phe Ser Lys Leu Leu Lys His Ser Val Ile Val Ala Ile Asp Tyr Trp Leu Ala Thr Trp Thr Ser Glu Tyr Ser Ile Asn Asn Thr Gly Lys Ala Asp Gln Thr Tyr Tyr Val Ala Gly Phe Ser Ile Leu Cys Gly Ala Gly Ile Phe Leu Cys Leu Val Thr Ser Leu Thr Val Glu Trp Met Gly Leu Thr Ala Ala Lys Asn Leu His His Asn Leu Leu Asn Lys Ile Ile Leu Gly Pro Ile Arg Phe Phe Asp Thr Thr Pro Leu Gly Leu Ile Leu Asn Arg Phe Ser Ala Asp Thr Asn Ile Ile Asp Gln His Ile Pro Pro Thr Leu Glu Ser Leu Thr Arg Ser Thr Leu Leu Cys Leu Ser Ala Ile Gly Met Ile Ser Tyr Ala Thr Pro Val Phe Leu Val Ala Leu Leu Pro Leu Gly Val Ala Phe Tyr Phe Ile Gln Lys Tyr Phe Arg Val Ala Ser Lys Asp Leu Gln Glu Leu Asp Asp Ser Thr Gln Leu Pro Leu Leu Cys His Phe Ser Glu Thr Ala Glu Page 41

Gly Leu Thr Thr Ile Arg Ala Phe Arg His Glu Thr Arg Phe Lys Gln Arg Met Leu Glu Leu Thr Asp Thr Asn Asn Ile Ala Tyr Leu Phe Leu Ser Ala Ala Asn Arg Trp Leu Glu Val Arg Thr Asp Tyr Leu Gly Ala 12Ĭ0 Cys Ile Val Leu Thr Ala Ser Ile Ala Ser Ile Ser Gly Ser Ser Asn Ser Gly Leu Val Gly Leu Gly Leu Leu Tyr Ala Leu Thr Ile Thr Asn Tyr Leu Asn Trp Val Val Arg Asn Leu Ala Asp Leu Glu Val Gln Met Gly Ala Val Lys Lys Val Asn Ser Phe Leu Thr Met Glu Ser Glu Asn Tyr Glu Gly Thr Met Asp Pro Ser Gln Val Pro Glu His Trp Pro Gln Glu Gly Glu Ile Lys Ile His Asp Leu Cys Val Arg Tyr Glu Asn Asn Leu Lys Pro Val Leu Lys His Val Lys Ala Tyr Ile Lys Pro Gly Gln
1315 1320 1325 Lys Val Gly Ile Cys Gly Arg Thr Gly Ser Gly Lys Ser Ser Leu Ser 1330 1340 Leu Ala Phe Phe Arg Met Val Asp Ile Phe Asp Gly Lys Ile Val Ile Asp Gly Ile Asp Ile Ser Lys Leu Pro Leu His Thr Leu Arg Ser Arg Leu Ser Ile Ile Leu Gln Asp Pro Ile Leu Phe Ser Gly Ser Ile Arg Phe Asn Leu Asp Pro Glu Cys Lys Cys Thr Asp Asp Arg Leu Trp Glu 05 Ala Leu Glu Ile Ala Gln Leu Lys Asn Met Val Lys Ser Leu Pro Gly Gly Leu Asp Ala val Val Thr Glu Gly Gly Glu Asn Phe Ser Val Gly Gln Arg Gln Leu Phe Cys Leu Ala Arg Ala Phe Val Arg Lys Ser Ser Ile Leu Ile Met Asp Glu Ala Thr Ala Ser Ile Asp Met Ala Thr Glu Asn Ile Leu Gln Lys Val Val Met Thr Ala Phe Ala Asp Arg Thr Val Val Thr Ile Ala His Arg Val His Thr Ile Leu Thr Ala Asp Leu Val Ile Val Met Lys Arg Gly Asn Ile Leu Glu Tyr Asp Thr Pro Glu Ser Leu Leu Ala Gln Glu Asn Gly Val Phe Ala Ser Phe Val Arg Ala Asp Met

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500 510 Thr Val Ile Arg Ser Ile Arg Ile Leu Lys Phe Leu Val Ala Lys Arg 515 520 525 Lys Phe Lys Glu Thr Leu Arg Pro Tyr Asp Val Lys Asp Val Ile Glu 530 535 540 Gln Tyr Ser Ala Gly His Leu Asp Met Leu Gly Arg Ile Lys Ser Leu Page 43

GC773-2-seqlist Gln Thr Arg Val Asp Gln Ile Val Gly Arg Gly Pro Gly Asp Arg Lys
565 570 575 Ala Arg Glu Lys Gly Asp Lys Gly Pro Ser Asp Ala Glu Val Val Asp 580 585 590 Glu Ile Ser Met Met Gly Arg Val Val Lys Val Glu Lys Gln Val Gln 595 600 605 Ser Ile Glu His Lys Leu Asp Leu Leu Val Gly Phe Tyr Ser Arg Trp 615 620 Leu Arg Ser Gly Thr Ser Ala Ser Leu Gly Ala Val Gln Val Pro Leu 630 635 625 Phe Asp Pro Asp Ile Thr Ser Asp Tyr His Ser Pro Val Asp His Glu 650 Asp Ile Ser Val Ser Ala Gln Thr Leu Ser Ile Ser Arg Ser Val Ser 665 660 Thr Asn Met Asp 675 <210> 36 <211> 361 <212> PRT <213> Homo sapiens <400> 36 Gin Ile Phe Pro Trp Lys Cys Gin Ser Thr Gin Arg Asp Leu Trp Asn 10 Ile Phe Lys Leu Trp Gly Trp Thr Met Leu Cys Cys Asp Phe Leu Ala 25 His His Gly Thr Asp Cys Trp Thr Tyr His Tyr Ser Glu Lys Pro Met Asn Trp Gln Arg Ala Arg Arg Phe Cys Arg Asp Asn Tyr Thr Asp Leu 50 Val Ala Ile Gln Asn Lys Ala Glu Ile Glu Tyr Leu Glu Lys Thr Leu 65 70 75 80 Pro Phe Ser Arg Ser Tyr Tyr Trp Ile Gly Ile Arg Lys Ile Gly Gly 85 90 95 Ile Trp Thr Trp Val Gly Thr Asn Lys Ser Leu Thr Glu Glu Ala Glu 100 105 110 Asn Trp Gly Asp Gly Glu Pro Asn Asn Lys Lys Asn Lys Glu Asp Cys 115 120 125 Val Glu Ile Tyr Ile.Lys Arg Asn Lys Asp Ala Gly Lys Trp Asn Asp 130 135 140 Asp Ala Cys His Lys Leu Lys Ala Ala Leu Cys Tyr Thr Ala Ser Cys 145 150 155 160 150 Gln Pro Trp Ser Cys Ser Gly His Gly Glu Cys Val Glu Ile Ile Asn 165 170 Asn Tyr Thr Cys Asn Cys Asp Val Gly Tyr Tyr Gly Pro Gln Cys Gln
180 185 190 Phe Val Ile Gln Cys Glu Pro Leu Glu Ala Pro Glu Leu Gly Thr Met 195 205 200 Asp Cys Thr His Pro Leu Gly Asn Phe Ser Phe Ser Ser Gln Cys Ala 210 220 Phe Ser Cys Ser Glu Gly Thr Asn Leu Thr Gly Ile Glu Glu Thr Thr 225 230 235 240 Cys Gly Pro Phe Gly Asn Trp Ser Ser Pro Glu Pro Thr Cys Gln Val Ile Gln Cys Glu Pro Leu Ser Ala Pro Asp Leu Gly Ile Met Asn Cys 265 270 260 Ser His Pro Leu Ala Ser Phe Ser Phe Thr Ser Ala Cys Thr Phe Ile 275 280 285 Cys Ser Glu Gly Thr Glu Leu Ile Gly Lys Lys Lys Thr Ile Cys Glu 300 295 Ser Ser Gly Ile Trp Ser Asn Pro Ser Pro Ile Cys Gln Lys Leu Asp 310 315

GC773-2-seqlist y Asp Tyr Asn Pr

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Trp Leu Ala Arg Arg Leu Lys Lys Gly 360

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115 120 125 115 120 Asn Leu Asp Asn Arg Ile Ala Asn Pro Asp Gln Leu Leu Thr Gln Asp 130 135 140 Val Glu Lys Phe Cys Asn Ser Val Val Asp Leu Tyr Ser Asn Leu Ser 150 155 Lys Pro Phe Leu Asp Ile Val Leu Tyr Ile Phe Lys Leu Thr Ser Ala 175 170 165 Ile Gly Ala Gln Gly Pro Ala Ser Met Met Ala Tyr Leu Val Val Ser 180 185 _ _ _ 190 Gly Leu Phe Leu Thr Arg Leu Arg Arg Pro Ile Gly Lys Met Thr Ile 195 200 _ 205 Thr Glu Gln Lys Tyr Glu Gly Glu Tyr Arg Tyr Val Asn Ser Arg Leu 210 215 220 210 Ile Thr Asn Ser Glu Glu Ile Ala Phe Tyr Asn Gly Asn Lys Arg Glu 235 230 Lys Gln Thr Val His Ser Val Phe Arg Lys Leu Val Glu His Leu His 250 245 Asn Phe Ile Leu Phe Arg Phe Ser Met Gly Phe Ile Asp Ser Ile Ile 270 260 265 Ala Lys Tyr Leu Ala Thr Val Val Gly Tyr Leu Val Val Ser Arg Pro Phe Leu Asp Leu Ser His Pro Arg His Leu Lys Ser Thr His Ser Glu 295 300 Leu Leu Glu Asp Tyr Tyr Gln Ser Gly Arg Met Leu Leu Arg Met Ser 305 310 315 Gln Ala Leu Gly Arg Ile Val Leu Ala Gly Arg Glu Met Thr Arg Leu 325 330 335 Ala Gly Phe Thr Ala Arg Ile Thr Glu Leu Met Gln Val Leu Lys Asp 340 345 350 Leu Asn His Gly Lys Tyr Glu Arg Thr Met Val Ser Gln Gln Glu Lys 360 Gly Ile Glu Gly Val Gln Val Ile Pro Leu Ile Pro Gly Ala Gly Glu 375 380 Ile Ile Ile Ala Asp Asn Ile Ile Lys Phe Asp His Val Pro Leu Ala 385 390 395 Page 45

GC773-2-seqlist Thr Pro Asn Gly Asp Val Leu Ile Arg Asp Leu Asn Phe Glu Val Arg 405 410 415 Ser Gly Ala Asn Val Leu Ile Cys Gly Pro Asn Gly Cys Gly Lys Ser 420 425 430 Ser Leu Phe Arg Val Leu Gly Glu Leu Trp Pro Leu Phe Gly Gly Arg 435 440 Leu Thr Lys Pro Glu Arg Gly Lys Leu Phe Tyr Val Pro Gln Arg Pro 455 460 Tyr Met Thr Leu Gly Thr Leu Arg Asp Gln Val Ile Tyr Pro Asp Gly 465 470 475 Arg Glu Asp Gln Lys Arg Lys Gly Ile Ser Asp Leu Val Leu Lys Glu 495 490 485 Tyr Leu Asp Asn Val Gln Leu Gly His Ile Leu Glu Arg Glu Gly Gly 505 500 Trp Asp Ser Val Gln Asp Trp Met Asp Val Leu Ser Gly Gly Glu Lys 525 520 515 Gln Arg Met Ala Met Ala Arg Leu Phe Tyr His Lys Pro Gln Phe Ala 530 540 Ile Leu Asp Glu Cys Thr Ser Ala Val Ser Val Asp Val Glu Gly Tyr 545 550 555 560 Ile Tyr Ser His Cys Arg Lys Val Gly Ile Thr Leu Phe Thr Val Ser 565 570 575 His Arg Lys Ser Leu Trp Lys His His Glu Tyr Tyr Leu His Met Asp 580 585 590 Gly Arg Gly Asn Tyr Glu Phe Lys Gln Ile Thr Glu Asp Thr Val Glu 595 600 605 Phe Gly Ser 610 <210> 38 <211> 522 <212> PRT <213> Homo sapiens <400> 38 Met Gly His Leu Leu Thr Leu Val Phe Ile Leu Ala Leu Ala Gly Pro 10 Val Leu Gly Leu Lys Glu Cys Thr Arg Gly Ser Ala Val Trp Cys Gln
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Glu Glu Glu Ile Leu Val Tyr Leu Glu Lys Thr Cys Asp Trp Leu Pro 90 85 95 Lys Pro Asn Met Ser Ala Ser Cys Lys Glu Ile Val Asp Ser Tyr Leu 105 110 100 Pro Val Ile Leu Asp Ile Ile Lys Gly Glu Met Ser Arg Pro Gly Glu
115 _ 120 _ 125 _ _ Val Cys Ser Ala Leu Asn Leu Cys Glu Ser Leu Gln Lys His Leu Ala 135 140 Glu Leu Asn His Gln Lys Gln Leu Glu Ser Asn Lys Ile Pro Glu Leu 145 150 155 160 Asp Met Thr Glu Val Val Ala Pro Phe Met Ala Asn Ile Pro Leu Leu 175 170 165 Leu Tyr Pro Gln Asp Gly Pro Arg Ser Lys Pro Gln Pro Lys Asp Asn 180 185 190 180 185 Gly Asp Val Cys Gln Asp Cys Ile Gln Met Val Thr Asp Ile Gln Thr 205 195 200 Ala Val Arg Thr Asn Ser Thr Phe Val Gln Ala Leu Val Glu His Val 210 215 220 Page 46

GC773-2-seqlist Lys Glu Glu Cys Asp Arg Leu Gly Pro Gly Met Ala Asp Ile Cys Lys
225 230 235 240 Asn Tyr Ile Ser Gln Tyr Ser Glu Ile Ala Ile Gln Met Met His 245 250 255 Met Gln Pro Lys Glu Ile Cys Ala Leu Val Gly Phe Cys Asp Glu Val 270 260 265 Lys Glu Met Pro Met Gln Thr Leu Val Pro Ala Lys Val Ala Ser Lys 280 285 Asn Val Ile Pro Ala Leu Glu Leu Val Glu Pro Ile Lys Lys His Glu 290 300 Val Pro Ala Lys Ser Asp Val Tyr Cys Glu Val Cys Glu Phe Leu Val 315 320 310 Lys Glu Val Thr Lys Leu Ile Asp Asn Asn Lys Thr Glu Lys Glu Ile 325 330 Leu Asp Ala Phe Asp Lys Met Cys Ser Lys Leu Pro Lys Ser Leu Ser 350 345 Glu Glu Cys Gln Glu Val Val Asp Thr Tyr Gly Ser Ser Ile Leu Ser 360 365 Ile Leu Leu Glu Glu Val Ser Pro Glu Leu Val Cys Ser Met Leu His 370 380 _____ Leu Cys Ser Gly Thr Arg Leu Pro Ala Leu Thr Val His Val Thr Gln 385 390 400 Pro Lys Asp Gly Gly Phe Cys Glu Val Cys Lys Lys Leu Val Gly Tyr
405 410 415 Leu Asp Arg Asn Leu Glu Lys Asn Ser Thr Lys Gln Glu Ile Leu Ala 430 425 420 Ala Leu Glu Lys Gly Cys Ser Phe Leu Pro Asp Pro Tyr Gln Lys Gln 445 435 440 Cys Asp Gln Phe Val Ala Glu Tyr Glu Pro Val Leu Ile Glu Ile Leu 450 455 460 val Glu val Met Asp Pro Ser Phe Val Cys Leu Lys Ile Gly Ala Cys 475 470 Pro Ser Ala His Lys Pro Leu Leu Gly Thr Glu Lys Cys Ile Trp Gly
485 490 495 Pro Ser Tyr Trp Cys Gln Asn Thr Glu Thr Ala Ala Gln Cys Asn Ala 505 500 510 Val Glu His Cys Lys Arg His Val Trp Asn 520 515 <210> 39 <211> 236 <212> PRT <213> Homo sapiens <400> 39 Leu Thr Glu Arg Ala Asp Phe Gln Tyr Ser Gln Arg Glu Leu Asp Thr 10 Ile Glu Val Phe Pro Thr Lys Ser Ala Arg Gly Asn Arg Val Ser Cys
20 25 30 Met Tyr Val Arg Cys Val Pro Gly Ala Arg Tyr Thr Val Phe Phe Ser 35 40 His Gly Asn Ala Val Asp Leu Ser Gln Met Ser Ser Phe Tyr Ile Gly 55 Leu Gly Ser Arg Leu His Cys Asn Ile Phe Tyr Asp Tyr Ser Gly Tyr 65 70 75 80 Gly Ala Ser Ala Gly Arg Pro Ser Glu Arg Asn Leu Tyr Ala Asp Ile 85 90 95 Asp Ala Ala Trp Gln Ala Leu His Thr Arg Tyr Gly Ile Ser Pro Asp
100 105 110 Ser Ile Ile Leu Tyr Gly Gln Ser Ile Gly Thr Val Pro Thr Val Asp 120 Leu Ala Ser Arg Tyr Glu Cys Ala Ala Val Val Leu His Ser Pro Leu 130 135 140

GC773-2-seqlist Thr Ser Gly Met Arg Val Ala Phe Pro Asp Thr Lys Thr Tyr Cys Phe 155 150 Asp Ala Phe Pro Asm Ile Glu Lys Val Ser Lys Ile Thr Ser Pro Val 170 Leu Ile Ile His Gly Met Glu Asp Glu Val Ile Asp Phe Ser His Gly 190 180 185 Leu Ala Leu Tyr Glu Arg Cys Pro Lys Ala Val Glu Pro Leu Trp Val 205 200 195 Glu Gly Ala Gly His Asn Asp Ile Glu Leu Tyr Ser Gln Tyr Leu Glu 210 215 220 Arg Leu Arg Arg Phe Ile Ser Gln Glu Leu Pro Ser 230 <210> 40 <211> 4647 <212> PRT <213> Homo sapiens <400> 40 Met Ser Glu Pro Gly Gly Gly Gly Glu Asp Gly Ser Ala Gly Leu 1 15 15Glu Val Ser Ala Val Gln Asn Val Ala Asp Val Ser Val Leu Gln Lys 20 25 30 His Leu Arg Lys Leu Val Pro Leu Leu Glu Asp Gly Glu Ala 40 Pro Ala Ala Leu Glu Ala Ala Leu Glu Glu Lys Ser Ala Leu Glu Gln 55 60 Met Arg Lys Phe Leu Ser Asp Pro Gln Val His Thr Val Leu Val Glu 70 Arg Ser Thr Leu Lys Glu Asp Val Gly Asp Glu Glu Glu Glu Lys 85 90 95 Glu Phe Ile Ser Tyr Asn Ile Asn Ile Asp Ile His Tyr Gly Val Lys 105 100 Ser Asn Ser Leu Ala Phe Ile Lys Arg Thr Pro Val Ile Asp Ala Asp 115 120 Lys Pro Val Ser Ser Gln Leu Arg Val Leu Thr Leu Ser Glu Asp Ser 140 135 130 Pro Tyr Glu Thr Leu His Ser Phe Ile Ser Asn Ala Val Ala Pro Phe 155 150 Phe Lys Ser Tyr Ile Arg Glu Ser Gly Lys Ala Asp Arg Asp Gly Asp 165 170 175 Lys Met Ala Pro Ser Val Glu Lys Lys Ile Ala Glu Leu Glu Met Gly 180 185 190 Leu Leu His Leu Gln Gln Asn Ile Glu Ile Pro Glu Ile Ser Leu Pro 200 205 Ile His Pro Met Ile Thr Asn Val Ala Lys Gln Cys Tyr Glu Arg Gly 210 215 220 215 210 Glu Lys Pro Lys Val Thr Asp Phe Gly Asp Lys Val Glu Asp Pro Thr 225 230 235 240 Phe Leu Asn Gln Leu Gln Ser Gly Val Asn Arg Trp Ile Arg Glu Ile 250 245 Gln Lys Val Thr Lys Leu Asp Arg Asp Pro Ala Ser Gly Thr Ala Leu 270 265 Gln Glu Ile Ser Phe Trp Leu Asn Leu Glu Arg Ala Leu Tyr Arg Ile 285 280 275 Gln Glu Lys Arg Glu Ser Pro Glu Val Leu Leu Thr Leu Asp Ile Leu 290 295 300 Lys His Gly Lys Arg Phe His Ala Thr Val Ser Phe Asp Thr Asp Thr 305 310 315 Gly Leu Lys Gln Ala Leu Glu Thr Val Asn Asp Tyr Asn Pro Leu Met 325 330 Lys Asp Phe Pro Leu Asn Asp Leu Leu Ser Ala Thr Glu Leu Asp Lys 345 340 350

GC773-2-seqlist Ile Arg Gln Ala Leu Val Ala Ile Phe Thr His Leu Arg Lys Ile Arg Asn Thr Lys Tyr Pro Ile Gln Arg Ala Leu Arg Leu Val Glu Ala Ile Ser Arg Asp Leu Ser Ser Gln Leu Leu Lys Val Leu Gly Thr Arg Lys Leu Met His Val Ala Tyr Glu Glu Phe Glu Lys Val Met Val Ala Cys Phe Glu Val Phe Gln Thr Trp Asp Asp Glu Tyr Glu Lys Leu Gln Val Leu Leu Arg Asp Ile Val Lys Arg Lys Arg Glu Glu Asn Leu Lys Met 44Ŏ Val Trp Arg Ile Asn Pro Ala His Arg Lys Leu Gln Ala Arg Leu Asp Gln Met Arg Lys Phe Arg Arg Gln His Glu Gln Leu Arg Ala Val Ile Val Arg Val Leu Arg Pro Gln Val Thr Ala Val Ala Gln Gln Asn Gln Gly Glu Val Pro Glu Pro Gln Asp Met Lys Val Ala Glu Val Leu Phe Asp Ala Ala Asp Ala Asn Ala Ile Glu Glu Val Asn Leu Ala Tyr Glu
515 520 525 Asn Val Lys Glu Val Asp Gly Leu Asp Val Ser Lys Glu Gly Thr Glu 530 540 Ala Trp Glu Ala Ala Met Lys Arg Tyr Asp Glu Arg Ile Asp Arg Val Glu Thr Arg Ile Thr Ala Arg Leu Arg Asp Gln Leu Gly Thr Ala Lys Asn Ala Asn Glu Met Phe Arg Ile Phe Ser Arg Phe Asn Ala Leu Phe Val Arg Pro His Ile Arg Gly Ala Ile Arg Glu Tyr Gln Thr Gln Leu Ile Glm Arg Val Lys Asp Asp Ile Glu Ser Leu His Asp Lys Phe Lys <u>Val</u> Gln Tyr Pro Gln <u>Ser</u> Gln Ala Cys Lys Met Ser His Val Arg Asp Leu Pro Pro Val Ser Gly Ser Ile Ile Trp Ala Lys Gln Ile Asp Arg 645 650 655 Gln Leu Thr Ala Tyr Met Lys Arg Val Glu Asp Val Leu Gly Lys Gly Trp Glu Asn His Val Glu Gly Gln Lys Leu Lys Gln Asp Gly Asp Ser Phe Arg Met Lys Leu Asn Thr Gln Glu Ile Phe Asp Asp Trp Ala Arg Lys Val Gln Gln Arg Asn Leu Gly Val Ser Gly Arg Ile Phe Thr Ile Glu Ser Thr Arg Val Arg Gly Arg Thr Gly Asn Val Leu Lys Leu Lys Val Asn Phe Leu Pro Glu Ile Ile Thr Leu Ser Lys Glu Val Arg Asn Leu Lys Trp Leu Gly Phe Arg Val Pro Leu Ala Ile Val Asn Lys Ala His Gln Ala Asn Gln Leu Tyr Pro Phe Ala Ile Ser Leu Ile Glu Ser Val Arg Thr Tyr Glu Arg Thr Cys Glu Lys Val Glu Glu Arg Asn Thr 785 790 795 800 Ile Ser Leu Leu Val Ala Gly Leu Lys Lys Glu Val Gln Ala Leu Ile 805 810 815 Ala Glu Gly Ile Ala Leu Val Trp Glu Ser Tyr Lys Leu Asp Pro Tyr Val Gln Arg Leu Ala Glu Thr Val Phe Asn Phe Gln Glu Lys Val Asp Asp Leu Leu Ile Ile Glu Glu Lys Ile Asp Leu Glu Val Arg Ser Leu

Glu Thr Cys Met Tyr Asp His Lys Thr Phe Ser Glu Ile Leu Asn Arg 865 870 875 880 Val Gln Lys Ala Val Asp Asp Leu Asn Leu His Ser Tyr Ser Asn Leu Pro Ile Trp Val Asn Lys Leu Asp Met Glu Ile Glu Arg Ile Leu Gly Val Arg Leu Gln Ala Gly Leu Arg Ala Trp Thr Gln Val Leu Leu Gly 92Õ Gln Ala Glu Asp Lys Ala Glu Val Asp Met Asp Thr Asp Ala Pro Gln Val Ser His Lys Pro Gly Gly Glu Pro Lys Ile Lys Asn Val Val His Glu Leu Arg Ile Thr Asn Gln Val Ile Tyr Leu Asn Pro Pro Ile Glu Glu Cys Arg Tyr Lys Leu Tyr Gln Glu Met Phe Ala Trp Lys Met Val Val Leu Ser Leu Pro Arg Ile Gln Ser Gln Arg Tyr Gln Val Gly Val His Tyr Glu Leu Thr Glu Glu Glu Lys Phe Tyr Arg Asn Ala Leu Thr 10Ž0 Arg Met Pro Asp Gly Pro Val Ala Leu Glu Glu Ser Tyr Ser Ala Val Met Gly Ile Val Ser Glu Val Glu Gln Tyr Val Lys Val Trp Leu Gln Tyr Gln Cys Leu Trp Asp Met Gln Ala Glu Asn Ile Tyr Asn Arg Leu Gly Glu Asp Leu Asn Lys Trp Gln Ala Leu Leu Val Gln Ile Arg Lys Ala Arg Gly Thr Phe Asp Asn Ala Glu Thr Lys Lys Glu Phe Gly Pro 1090 1095 1100 Val Val Ile Asp Tyr Gly Lys Val Gln Ser Lys Val Asn Leu Lys Tyr Asp Ser Trp His Lys Glu Val Leu Ser Lys Phe Gly Gln Met Leu Gly Ser Asn Met Thr Glu Phe His Ser Gln Ile Ser Lys Ser Arg Gln Glu 1140 1145 1150 Leu Glu Gln His Ser Val Asp Thr Ala Ser Thr Ser Asp Ala Val Thr Phe Ile Thr Tyr Val Gln Ser Leu Lys Arg Lys Ile Lys Gln Phe Glu Lys Gln Val Glu Leu Tyr Arg Asn Gly Gln Arg Leu Leu Glu Lys Gln Arg Phe Gln Phe Pro Pro Ser Trp Leu Tyr Ile Asp Asn Ile Glu Gly Glu Trp Gly Ala Phe Asn Asp Ile Met Arg Arg Lys Asp Ser Ala Ile Gln Gln Gln Val Ala Asn Leu Gln Met Lys Ile Val Gln Glu Asp Arg Ala Val Glu Ser Arg Thr Thr Asp Leu Leu Thr Asp Trp Glu Lys Thr Lys Pro Val Thr Gly Asn Leu Arg Pro Glu Glu Ala Leu Gln Ala Leu Thr lle Tyr Glu Gly Lys Phe Gly Arg Leu Lys Asp Asp Arg Glu Lys 1285 1290 1295 Cys Ala Lys Ala Lys Glu Ala Leu Glu Leu Thr Asp Thr Gly Leu Leu Ser Gly Ser Glu Glu Arg Val Gln Val Ala Leu Glu Glu Leu Gln Asp Leu Lys Gly Val Trp Ser Glu Leu Ser Lys Val Trp Glu Gln Ile Asp Gln Met Lys Glu Gln Pro Trp Val Ser Val Gln Pro Arg Lys Leu Arg Page 50

GC773-2-seqlist Gln Asn Leu Asp Ala Leu Leu Asn Gln Leu Lys Ser Phe Pro Ala Arg Leu Arg Gln Tyr Ala Ser Tyr Glu Phe Val Gln Arg Leu Leu Lys Gly Tyr Met Lys Ile Asn Met Leu Val Ile Glu Leu Lys Ser Glu Ala Leu 1395 1400 1405 Lys Asp Arg His Trp Lys Gln Leu Met Lys Arg Leu His Val Asn Trp Val Val Ser Glu Leu Thr Leu Gly Gln Ile Trp Asp Val Asp Leu Gln Lys Asn Glu Ala Ile Val Lys Asp Val Leu Leu Val Ala Gln Gly Glu Met Ala Leu Glu Glu Phe Leu Lys Gln Ala Lys Val Trp Asn Thr Tyr Glu Leu Asp Leu Val Asn Tyr Gln Asn Lys Cys Arg Leu Ile Arg Gly Trp Asp Asp Leu Phe Asn Lys Val Lys Glu His Ile Asn Ser Val Ser Ala Met Lys Leu Ser Pro Tyr Tyr Lys Val Phe Glu Glu Asp Ala Leu Ser Trp Glu Asp Lys Leu Asn Arg Ile Met Ala Leu Phe Asp Val Trp
1525
1530
1535 Ile Asp Val Gln Arg Arg Trp Val Tyr Leu Glu Gly Ile Phe Thr Gly
1540 1545 1550 Ser Ala Asp Ile Lys His Leu Leu Pro Val Glu Thr Gln Arg Phe Gln Ser Ile Ser Thr Glu Phe Leu Ala Leu Met Lys Lys Val Ser Lys Ser $\bar{1}580$ Pro Leu Val Met Asp Val Leu Asn Ile Gln Gly Val Gln Arg Ser Leu Glu Arg Leu Ala Asp Leu Leu Gly Lys Ile Gln Lys Ala Leu Gly Glu Tyr Leu Glu Arg Glu Arg Ser Ser Phe Pro Arg Phe Tyr Phe Val Gly 20 Asp Glu Asp Leu Leu Glu Ile Ile Gly Asn Ser Lys Asn Val Ala Lys Leu Gln Lys His Phe Lys Lys Met Phe Ala Gly Val Ser Ser Ile Ile Leu Asn Glu Asp Asn Ser Val Val Leu Gly Ile Ser Ser Arg Glu Gly Glu Glu Val Met Phe Lys Thr Pro Val Ser Ile Thr Glu His Pro Lys Ile Asn Glu Trp Leu Thr Leu Val Glu Lys Glu Met Arg Val Thr Leu Ala Lys Leu Leu Ala Glu Ser Val Thr Glu Val Glu Ile Phe Gly Lys Ala Thr Ser Ile Asp Pro Asn Thr Tyr Ile Thr Trp Ile Asp Lys Tyr Gln Ala Gln Leu Val Val Leu Ser Ala Gln Ile Ala Trp Ser Glu Asn val Glu Thr Ala Leu Ser Ser Met Gly Gly Gly Gly Asp Ala Ala Pro Leu His Ser Val Leu Ser Asn Val Glu Val Thr Leu Asn Val Leu Ala Asp Ser Val Leu Met Glu Gln Pro Pro Leu Arg Arg Arg Lys Leu Glu 1795 1800 1805 His Leu Ile Thr Glu Leu Val His Gln Arg Asp Val Thr Arg Ser Leu Ile Lys Ser Lys Ile Asp Asn Ala Lys Ser Phe Glu Trp Leu Ser Gln Met Arg Phe Tyr Phe Asp Pro Lys Gln Thr Asp Val Leu Gln Gln Leu Ser Ile Gln Met Ala Asn Ala Lys Phe Asn Tyr Gly Phe Glu Tyr Leu

Gly Val Gln Asp Lys Leu Val Gln Thr Pro Leu Thr Asp Arg Cys Tyr Leu Thr Met Thr Gln Ala Leu Glu Ala Arg Leu Gly Gly Ser Pro Phe Gly Pro Ala Gly Thr Gly Lys Thr Glu Ser Val Lys Ala Leu Gly His Gln Leu Gly Arg Phe Val Leu Val Phe Asn Cys Asp Glu Thr Phe Asp Phe Gln Ala Met Gly Arg Ile Phe Val Gly Leu Cys Gln Val Gly Ala Trp Gly Cys Phe Asp Glu Phe Asn Arg Leu Glu Glu Arg Met Leu Ser Ala Val Ser Gln Gln Val Gln Cys Ile Gln Glu Ala Leu Arg Glu His Ser Asn Pro Asn Tyr Asp Lys Thr Ser Ala Pro Ile Thr Cys Glu Leu Leu Asn Lys Gln Val Lys Val Ser Pro Asp Met Ala Ile Phe Ile Thr Met Asn Pro Ala Tyr Ala Gly Arg Ser Asn Leu Pro Asp Asn Leu Lys Lys Leu Phe Arg Ser Leu Ala Met Thr Lys Pro Asp Arg Gln Leu Ile Ala Gln Val Met Leu Tyr Ser Gln Gly Phe Arg Thr Ala Glu Val Leu Ala Asn Lys Ile Val Pro Phe Phe Lys Leu Cys Asp Glu Gln Leu Ser Ser Gln Ser His Tyr Asp Phe Gly Leu Arg Ala Leu Lys Ser Val Leu Val Ser Ala Gly Asn Val Lys Arg Glu Arg Ile Gln Lys Ile Lys Arg Glu Lys Glu Glu Arg Gly Glu Ala Val Asp Glu Gly Glu Ile Ala Glu Asn Leu Pro Glu Gln Glu Ile Leu Ile Gln Ser Val Cys Glu Thr Met Val Pro Lys Leu Val Ala Glu Asp Ile Pro Leu Leu Phe Ser Leu Leu Ser Asp Val Phe Pro Gly Val Gln Tyr His Arg Gly Glu Met Thr Ala Leu Arg Glu Glu Leu Lys Lys Val Cys Gln Glu Met Tyr Leu Thr Tyr 2180 _____ 2185 ____ 2190 Gly Asp Gly Glu Glu Val Gly Gly Met Trp Val Glu Lys Val Leu Gln Leu Tyr Gln Ile Thr Gln Ile Asn His Gly Leu Met Met Val Gly Pro Ser Gly Ser Gly Lys Ser Met Ala Trp Arg Val Leu Leu Lys Ala Leu Glu Arg Leu Glu Gly Val Glu Gly Val Ala His Ile Ile Asp Pro_Lys Ala Ile Ser Lys Asp His Leu Tyr Gly Thr Leu Asp Pro Asn Thr Arg Glu Trp Thr Asp Gly Leu Phe Thr His Val Leu Arg Lys Ile Ile Asp Ser Val Arg Gly Glu Leu Gln Lys Arg Gln Trp Ile Val Phe Asp Gly Asp Val Asp Pro Glu Trp Val Glu Asn Leu Asn Ser Val Leu Asp Asp Asn Lys Leu Leu Thr Leu Pro Asn Gly Glu Arg Leu Ser Leu Pro Pro Asn Val Arg Ile Met Phe Glu Val Gln Asp Leu Lys Tyr Ala Thr Leu Ala Thr Val Ser Arg Cys Gly Met Val Trp Phe Ser Glu Asp Val Leu

GC773-2-seqlist Ser Thr Asp Met Ile Phe Asn Asn Phe Leu Ala Arg Leu Arg Ser Ile Pro Leu Asp Glu Gly Glu Asp Glu Ala Gln Arg Arg Lys Gly Lys Glu Asp Glu Glu Glu Ala Ala Ser Pro Met Leu Gln Ile Gln Arg 2405 2410 2415 Thr Lys Ala Leu Glu His Ala Phe Gln Leu Glu His Ile Met Asp Leu Thr Arg Leu Arg Cys Leu Gly Ser Leu Phe Ser Met Leu His Gln Ala Cys Arg Asn Val Ala Gln Tyr Asn Ala Asn His Pro Asp Phe Pro Met Pro Asn Ile Pro Ile Ile Asp Tyr Glu Val Ser Ile Ser Gly Glu Trp 2530 2540 Cys Gly Pro Pro Gly Ser Gly Lys Thr Met Thr Leu Phe Ser Ala Leu 2595 2600 2605 Arg Ala Leu Pro Asp Met Glu Val Val Gly Leu Asn Phe Ser Ser Ala

Asp Ala Ala Thr Ile Met Gln Pro Tyr Phe Thr Ser Asn Gly Leu Val 2420 2425 2430 Gln Ile Glu Gln Leu Glu Arg Tyr Ile Gln Arg Tyr Leu Val Tyr Ala Ile Leu Trp Ser Leu Ser Gly Asp Ser Arg Leu Lys Met Arg Ala Glu 2500 2505 2510 Leu Gly Glu Tyr Ile Arg Arg Ile Thr Thr Val Pro Leu Pro Thr Ala 2515 2520 2525 Ser Pro Trp Gln Ala Lys Val Pro Gln Ile Glu Val Glu Thr His Lys 2545 2550 2555 256 Val Ala Ala Pro Asp Val Val Val Pro Thr Leu Asp Thr Val Arg His 2565 2575 Glu Ala Leu Leu Tyr Thr Trp Leu Ala Glu His Lys Pro Leu Val Leu 2580 2585 2590 Thr Thr Pro Glu Leu Leu Lys Thr Phe Asp His Tyr Cys Glu Tyr 2625 2630 2635 Arg Arg Thr Pro Asn Gly Val Val Leu Ala Pro Val Gln Leu Gly Lys 2645 2650 2655 Trp Leu Val Leu Phe Cys Asp Glu Ile Asn Leu Pro Asp Met Asp Lys 2660 2665 2670 Tyr Gly Thr Gln Arg Val Ile Ser Phe Ile Arg Gln Met Val Glu His 2675 2680 2685 Gly Gly Phe Tyr Arg Thr Ser Asp Gln Thr Trp Val Lys Leu Glu Arg 2690 2695 2700 Ile Gln Phe Val Gly Ala Cys Asn Pro Pro Thr Asp Pro Gly Arg Lys 2705 2710 2715 272 Pro Leu Ser His Arg Phe Leu Arg His Val Pro Val Val Tyr Val Asp 2725 2730 2735 Tyr Pro Gly Pro Ala Ser Leu Thr Gln Ile Tyr Gly Thr Phe Asn Arg 2740 2745 2750 Ala Met Leu Arg Leu Ile Pro Ser Leu Arg Thr Tyr Ala Glu Pro Leu Thr Ala Ala Met Val Glu Phe Tyr Thr Met Ser Gln Glu Arg Phe Thr Gln Asp Thr Gln Pro His Tyr Ile Tyr Ser Pro Arg Glu Met Thr Arg 2785 2790 2795 280 Trp Val Arg Gly Ile Phe Glu Ala Leu Arg Pro Leu Glu Thr Leu Pro 2805 2810 2815 Val Glu Gly Leu Ile Arg Ile Trp Ala His Glu Ala Leu Arg Leu Phe Gln Asp Arg Leu Val Glu Asp Glu Glu Arg Arg Trp Thr Asp Glu Asn Ile Asp Thr Val Ala Leu Lys His Phe Pro Asn Ile Asp Arg Glu Lys Ala Met Ser Arg Pro Ile Leu Tyr Ser Asn Trp Leu Ser Lys Asp Tyr Page 53

Ile Pro Val Asp Gln Glu Glu Leu Arg Asp Tyr Val Lys Ala Arg Leu 2885 2890 2895 Lys Val Phe Tyr Glu Glu Leu Asp Val Pro Leu Val Leu Phe Asn 2900 2910 Glu Val Leu Asp His Val Leu Arg Ile Asp Arg Ile Phe Arg Gln Pro 2915 2920 2925 Gln Gly His Leu Leu Leu Ile Gly Val Ser Gly Ala Gly Lys Thr Thr 2930 2940 Leu Ser Arg Phe Val Ala Trp Met Asn Gly Leu Ser Val Tyr Gln Ile Lys Val His Arg Lys Tyr Thr Gly Glu Asp Phe Asp Glu Asp Leu Arg 2965 2970 2975 Thr Val Leu Arg Arg Ser Gly Cys Lys Asn Glu Lys Ile Ala Phe Ile 2980 2985 2990 Met Asp Glu Ser Asn Val Leu Asp Ser Gly Phe Leu Glu Arg Met Asn Thr Leu Leu Ala Asn Gly Glu Val Pro Gly Leu Phe Glu Gly Asp Glu Tyr Ala Thr Leu Met Thr Gln Cys Lys Glu Gly Ala Gln Lys Glu Gly Leu Met Leu Asp Ser His Glu Glu Leu Tyr Lys Trp Phe Thr Ser Gln 3045 3050 3055 Val Ile Arg Asn Leu His Val Val Phe Thr Met Asn Pro Ser Ser Glu Gly Leu Lys Asp Arg Ala Ala Thr Ser Pro Ala Leu Phe Asn Arg Cys Val Leu Asn Trp Phe Gly Asp Trp Ser Thr Glu Ala Leu Tyr Gln Val 3090 3095 3100 Gly Lys Glu Phe Thr Ser Lys Met Asp Leu Glu Lys Pro Asn Tyr Ile Val Pro Asp Tyr Met Pro Val Val Tyr Asp Lys Leu Pro Gln Pro Pro Ser His Arg Glu Ala Ile Val Asn Ser Cys Val Phe Val His Gln Thr Leu His Gln Ala Asn Ala Arg Leu Ala Lys Arg Gly Gly Arg Thr Met Ala Ile Thr Pro Arg His Tyr Leu Asp Phe Ile Asn His Tyr Ala Asn 3170 3175 3180 Leu Phe His Glu Lys Arg Ser Glu Leu Glu Glu Gln Gln Met His Leu 3185 3190 3195 320 Asn Val Gly Leu Arg Lys Ile Lys Glu Thr Val Asp Gln Val Glu Glu 3205 3210 3215 32Ŏ5 Î Leu Arg Arg Asp Leu Arg Ile Lys Ser Gln Glu Leu Glu Val Lys Asn 3220 3225 3230 Ala Ala Asn Asp Lys Leu Lys Lys Met Val Lys Asp Gln Gln Glu 3235 _ 3240 _ 3245 Ala Glu Lys Lys Lys Val Met Ser Gln Glu Ile Gln Glu Gln Leu His 3250 3260 Lys Gln Gln Glu Val Ile Ala Asp Lys Gln Met Ser Val Lys Glu Asp 3265 3270 3275 328 Leu Asp Lys Val Glu Pro Ala Val Ile Glu Ala Gln Asn Ala Val Lys Ser Ile Lys Lys Gln His Leu Val Glu Val Arg Ser Met Ala Asn Pro Pro Ala Ala Val Lys Leu Ala Leu Glu Ser Ile Cys Leu Leu Leu Gly 3315 Glu Ser Thr Thr Asp Trp Lys Gln Ile Arg Ser Ile Ile Met Arg Glu 3330 3340 3335 3340 Asn Phe Ile Pro Thr Ile Val Asn Phe Ser Ala Glu Glu Ile Ser Asp 3345 3350 3355 336 Ala Ile Arg Glu Lys Met Lys Lys Asn Tyr Met Ser Asn Pro Ser Tyr 3365 Page 54

GC773-2-seqlist Asn Tyr Glu Ile Val Asn Arg Ala Ser Leu Ala Cys Gly Pro Met Val Lys Trp Ala Ile Ala Gln Leu Asn Tyr Ala Asp Met Leu Lys Arg Val Glu Pro Leu Arg Asn Glu Leu Gln Lys Leu Glu Asp Asp Ala Lys Asp Asn Gln Gln Lys Ala Asn Glu Val Glu Gln Met Ile Arg Asp Leu Glu Ala Ser Ile Ala Arg Tyr Lys Glu Glu Tyr Ala Val Leu Ile Ser Glu 3445 3450 3455 Ala Gln Ala Ile Lys Ala Asp Leu Ala Ala Val Glu Ala Lys Val Asn 3460 3470 Arg Ser Thr Ala Leu Leu Lys Ser Leu Ser Ala Glu Arg Glu Arg Trp Glu Lys Thr Ser Glu Thr Phe Lys Asn Gln Met Ser Thr Ile Ala Gly Asp Cys Leu Leu Ser Ala Ala Phe Ile Ala Tyr Ala Gly Tyr Phe Asp 3505 3510 3515 352 Gln Gln Met Arg Gln Asn Leu Phe Thr Thr Trp Ser His His Leu Gln Gln Ala Asn Ile Gln Phe Arg Thr Asp Ile Ala Arg Thr Glu Tyr Leu 3540 3545 3550 Ser Asn Ala Asp Glu Arg Leu Arg Trp Gln Ala Ser Ser Leu Pro Ala Asp Asp Leu Cys Thr Glu Asn Ala Ile Met Leu Lys Arg Phe Asn Arg Tyr Pro Leu Ile Ile Asp Pro Ser Gly Gln Ala Thr Glu Phe Ile Met Ash Glu Tyr Lys Asp Arg Lys Ile Thr Arg Thr Ser Phe Leu Asp Asp 3605 3615 Ala Phe Arg Lys Asn Leu Glu Ser Ala Leu Arg Phe Gly Asn Pro Leu Leu Val Gln Asp Val Glu Ser Tyr Asp Pro Val Leu Asn Pro Val Leu 3635 3640 3645 Asn Arg Glu val Arg Arg Thr Gly Gly Arg val Leu Ile Thr Leu Gly Asp Gln Asp Ile Asp Leu Ser Pro Ser Phe Val Ile Phe Leu Ser Thr Arg Asp Pro Thr Val Glu Phe Pro Pro Asp Leu Cys Ser Arg Val Thr 3685 3690 3695 Phe Val Asn Phe Thr Val Thr Arg Ser Ser Leu Gln Ser Gln Cys Leu Asn Glu Val Leu Lys Ala Glu Arg Pro Asp Val Asp Glu Lys Arg Ser Asp Leu Leu Lys Leu Gln Gly Glu Phe Gln Leu Arg Leu Arg Gln Leu Glu Lys Ser Leu Leu Gln Ala Leu Asn Glu Val Lys Gly Arg Ile Leu Asp Asp Asp Thr Ile Ile Thr Thr Leu Glu Asn Leu Lys Arg Glu Ala Ala Glu Val Thr Arg Lys Val Glu Glu Thr Asp Ile Val Met Gln Glu Val Glu Thr Val Ser Gln Gln Tyr Leu Pro Leu Ser Thr Ala Cys Ser Ser Ile Tyr Phe Thr Met Glu Ser Leu Lys Gln Ile His Phe Leu Tyr Gln Tyr Ser Leu Gln Phe Phe Leu Asp Ile Tyr His Asn Val Leu Tyr 3825 3830 3835 384 Glu Asn Pro Asn Leu Lys Gly Val Thr Asp His Thr Gln Arg Leu Ser Ile Ile Thr Lys Asp Leu Phe Gln Val Ala Phe Asn Arg Val Ala Arg Gly Met Leu His Gln Asp His Ile Thr Phe Ala Met Leu Leu Ala Arg

GC773-2-seqlist Ile Lys Leu Lys Gly Thr Val Gly Glu Pro Thr Tyr Asp Ala Glu Phe 3890 3895 3900 Gln His Phe Leu Arg Gly Asn Glu Ile Val Leu Ser Ala Gly Ser Thr 3905 3910 3915 392 Pro Arg Ile Gln Gly Leu Thr Val Glu Gln Ala Glu Ala Val Val Arg 3925 3930 3935 Leu Ser Cys Leu Pro Ala Phe Lys Asp Leu Ile Ala Lys Val Gln Ala 3940 3945 3950 Asp Glu Gln Phe Gly Ile Trp Leu Asp Ser Ser Ser Pro Glu Gln Thr 3955 3960 3965 Val Pro Tyr Leu Trp Ser Glu Glu Thr Pro Ala Thr Pro Ile Gly Gln Ala Ile His Arg Leu Leu Ile Gln Ala Phe Arg Pro Asp Arg Leu Leu Ala Met Ala His Met Phe Val Ser Thr Asn Leu Gly Glu Ser Phe 4005 4010 Met Ser Ile Met Glu Gln Pro Leu Asp Leu Thr His Ile Val Gly Thr Glu Val Lys Pro Asn Thr Pro Val Leu Met Cys Ser Val Pro Gly Tyr 4035 4040 4045 Asp Ala Ser Gly His Val Glu Asp Leu Ala Ala Glu Gln Asn Thr Gln
4050 4060 Ile Thr Ser Ile Ala Ile Gly Ser Ala Glu Gly Phe Asn Gln Ala Asp Lys Ala Ile Asn Thr Ala Val Lys Ser Gly Arg Trp Val Met Leu Lys Asn val His Leu Ala Pro Gly Trp Leu Met Gln Leu Glu Lys Lys Leu His Ser Leu Gln Pro His Ala Cys Phe Arg Leu Phe Leu Thr Met Glu 4115 4120 4125 Ile Asn Pro Lys Val Pro Val Asn Leu Leu Arg Ala Gly Arg Ile Phe Val Phe Glu Pro Pro Pro Gly Val Lys Ala Asn Met Leu Arg Thr Phe Ser Ser Ile Pro Val Ser Arg Ile Cys Lys Ser Pro Asn Glu Arg Ala Arg Leu Tyr Phe Leu Leu Ala Trp Phe His Ala Ile Ile Gln Glu Arg Leu Arg Tyr Ala Pro Leu Gly Trp Ser Lys Lys Tyr Glu Phe Gly Glu
4195
4200
4205 Ser Asp Leu Arg Ser Ala Cys Asp Thr Val Asp Thr Trp Leu Asp Asp 4210 4215 4220 Thr Ala Lys Ala Ser Gly Arg Gln Asn Ile Ser Pro Asp Lys Ile Pro Trp Ser Ala Leu Lys Thr Leu Met Ala Gln Ser Ile Tyr Gly Gly Arg
4245 4250 4255 Val Asp Asn Glu Phe Asp Gln Arg Leu Leu Asn Thr Phe Leu Glu Arg Leu Phe Thr Thr Arg Ser Phe Asp Ser Glu Phe Lys Leu Ala Cys Lys 4275 4280 4285 Val Asp Gly His Lys Asp Ile Gln Met Pro Asp Gly Ile Arg Arg Glu Glu Phe Val Gln Trp Val Glu Leu Leu Pro Asp Thr Gln Thr Pro Ser 4305 4310 4315 432 Trp Leu Gly Leu Pro Asn Asn Ala Glu Arg Val Leu Leu Thr Thr Gln
4325 4330 4335 Gly Val Asp Met Ile Ser Lys Met Leu Lys Met Gln Met Leu Glu Asp 4340 4350 Glu Asp Asp Leu Ala Tyr Ala Glu Thr Glu Lys Lys Thr Arg Thr Asp Ser Thr Ser Asp Gly Arg Pro Ala Trp Met Arg Thr Leu His Thr Thr Page 56

Ala Ser Asn Trp Leu His Leu Ile Pro Gln Thr Leu Ser His Leu Lys Arg Thr Val Glu Asn Ile Lys Asp Pro Leu Phe Arg Phe Phe Glu Arg Glu Val Lys Met Gly Ala Lys Leu Leu Gln Asp Val Arg Gln Asp Leu Ala Asp Val Val Gln Val Cys Glu Gly Lys Lys Lys Gln Thr Asn Tyr Leu Arg Thr Leu Ile Asn Glu Leu Val Lys Gly Ile Leu Pro Arg Ser Trp Ser His Tyr Thr Val Pro Ala Gly Met Thr Val Ile Gln Trp Val Ser Asp Phe Ser Glu Arg Ile Lys Gln Leu Gln Asn Ile Ser Leu Ala Ala Ala Ser Gly Gly Ala Lys Glu Leu Lys Asn Ile His Val Cys Leu Gly Gly Leu Phe Val Pro Glu Ala Tyr Ile Thr Ala Thr Arg Gln Tyr Val Ala Gln Ala Asn Ser Trp Ser Leu Glu Glu Leu Cys Leu Glu Val Asn Val Thr Thr Ser Gln Gly Ala Thr Leu Asp Ala Cys Ser Phe Gly 4545 4550 4555 456 Val Thr Gly Leu Lys Leu Gln Gly Ala Thr Cys Asn Asn Asn Lys Leu 4565 4570 4575 Ser Leu Ser Asn Ala Ile Ser Thr Ala Leu Pro Leu Thr Gln Leu Arg Trp Val Lys Gln Thr Asn Thr Glu Lys Lys Ala Ser Val Val Thr Leu Pro Val Tyr Leu Asn Phe Thr Arg Ala Asp Leu Ile Phe Thr Val Asp Phe Glu Ile Ala Thr Lys Glu Asp Pro Arg Ser Phe Tyr Glu Arg Gly Val Ala Val Leu Cys Thr Glu

<210> 41 <211> 1232 <212> PRT

<213> Homo sapiens

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GC773-2-seglist Gly Leu Pro Gly Arg Ala Ala Val Thr Lys Pro Leu Pro Ser Val Gly Pro His Thr Asp Lys Ser Pro Gln His Ser Ser Ser Pro Ser Pro Arg Ala Arg Ala Ser Arg Leu Ala Gly Glu Lys Ser Arg Pro Trp Ser Pro Ser Ala Ser Tyr Asp Leu Arg Glu Arg Leu Cys Pro Gly Ser Ala Leu Gly Asn Pro Gly Gly Pro Glu Gln Gln Val Pro Thr Asp Glu Ala Glu Ala Gln Met Leu Gly Ser Ala Asp Leu Asp Asp Met Lys Ser His Arg Leu Glu Asp Asn Pro Gly Val Arg Arg His Leu Val Lys Lys Pro Ser Arg Thr Gln Gly Gly Arg Gly Ser Pro Ser Gly Leu Ala Pro Ile Leu Arg Arg Lys Lys Lys Lys Lys Leu Asp Arg Arg Pro His Glu 305 310 315 320 Val Phe Val Glu Leu Asn Glu Leu Met Leu Asp Arg Ser Gln Glu Pro His Trp Arg Glu Thr Ala Arg Trp Ile Lys Phe Glu Glu Asp Val Glu Glu Glu Thr Glu Arg Trp Gly Lys Pro His Val Ala Ser Leu Ser Phe Arg Ser Leu Leu Glu Leu Arg Arg Thr Ile Ala His Gly Ala Ala Leu 370 375 380 Leu Asp Leu Glu Gln Thr Thr Leu Pro Gly Ile Ala His Leu Val Val Glu Thr Met Ile Val Ser Asp Gln Ile Arg Pro Glu Asp Arg Ala Ser 41Ŏ Val Leu Arg Thr Leu Leu Leu Lys His Ser His Pro Asn Asp Asp Lys Asp Ser Gly Phe Phe Pro Arg Asn Pro Ser Ser Ser Met Asn Ser Val Leu Gly Asn His His Pro Thr Pro Ser His Gly Pro Asp Gly Ala Val Pro Thr Met Ala Asp Asp Leu Gly Glu Pro Ala Pro Leu Trp Pro His Asp Pro Asp Ala Lys Glu Lys Pro Leu His Met Pro Gly Gly Asp Gly His Arg Gly Lys Ser Leu Lys Leu Clu Lys Ile Pro Glu Asp Ala Glu Ala Thr Val Val Leu Val Gly Cys Val Pro Phe Leu Glu Gln Pro Ala Ala Ala Phe Val Arg Leu Asn Glu Ala Val Leu Leu Glu Ser Val Leu Glu Val Pro Val Pro Val Arg Phe Leu Phe Val Met Leu Gly Pro Ser His Thr Ser Thr Asp Tyr His Glu Leu Gly Arg Ser Ile Ala Thr Leu Met Ser Asp Lys Leu Phe His Glu Ala Ala Tyr Gln Ala Asp Asp Arg Gln Asp Leu Leu Ser Ala Ile Ser Glu Phe Leu Asp Gly Ser Ile Val Ile Pro Pro Ser Glu Val Glu Gly Arg Asp Leu Leu Arg Ser Val Ala Ala Phe Gln Arg Glu Leu Leu Arg Lys Arg Arg Glu Arg Glu 63Ō Gln Thr Lys val Glu Met Thr Thr Arg Gly Gly Tyr Thr Ala Pro Gly Lys Glu Leu Ser Leu Glu Leu Gly Gly Ser Glu Ala Thr Pro Glu Asp Asp Pro Leu Leu Arg Thr Gly Ser Val Phe Gly Gly Leu Val Arg Asp Page 58

Val Arg Arg Arg Tyr Pro His Tyr Pro Ser Asp Leu Arg Asp Ala Leu 69Ō His Ser Gln Cys Val Ala Ala Val Leu Phe Ile Tyr Phe Ala Ala Leu Ser Pro Ala Ile Thr Phe Gly Gly Leu Leu Gly Glu Lys Thr Glu Gly Leu Met Gly Val Ser Glu Leu Ile Val Ser Thr Ala Val Leu Gly Val Leu Phe Ser Leu Leu Gly Ala Gln Pro Leu Leu Val Val Gly Phe Ser Gly Pro Leu Leu Val Phe Glu Glu Ala Phe Phe Lys Phe Cys Arg Ala Gln Asp Leu Glu Tyr Leu Thr Gly Arg Val Trp Val Gly Leu Trp Leu val val Phe val Leu Ala Leu Val Ala Ala Glu Gly Ser Phe Leu Val Arg Tyr Ile Ser Pro Phe Thr Gln Glu Ile Phe Ala Phe Leu Ile Ser Leu Ile Phe Ile Tyr Glu Thr Phe Tyr Lys Leu Tyr Lys Val Phe Thr Glu His Pro Leu Leu Pro Phe Tyr Pro Pro Glu Gly Ala Leu Glu Gly Ser Leu Asp Ala Gly Leu Glu Pro Asn Gly Ser Ala Leu Pro Pro Thr Glu Gly Pro Pro Ser Pro Arg Asn Gln Pro Asn Thr Ala Leu Leu Ser Leu Ile Leu Met Leu Gly Thr Phe Phe Ile Ala Phe Phe Leu Arg Lys Phe Arg Asn Ser Arg Phe Leu Gly Gly Lys Ala Arg Arg Ile Ile Gly Asp Phe Gly Ile Pro Ile Ser Ile Leu Val Met Val Leu Val Asp Tyr Ser Ile Thr Asp Thr Tyr Thr Gln Lys Leu Thr Val Pro Thr Gly Leu Ser Val Thr Ser Pro Asp Lys Arg Ser Trp Phe Ile Pro Pro Leu Gly Ser Ala Arg Pro Phe Pro Pro Trp Met Met Val Ala Ala Ala Val Pro Ala Leu Leu Val Leu Ile Leu Ile Phe Met Glu Thr Gln Ile Thr Ala Leu Ile Val Ser Gln Lys Ala Arg Arg Leu Leu Lys Gly Ser Gly Phe His Leu Asp Leu Leu Leu Ile Gly Ser Leu Gly Gly Leu Cys Gly Leu Phe Gly Leu Pro Trp Leu Thr Ala Ala Thr Val Arg Ser Val Thr His Val Asn Ala Leu Thr Val Met Arg Thr Ala Ile Ala Pro Gly Asp Lys Pro Gln Ile Gln Glu Val Arg Glu Gln Arg Val Thr Gly Val Leu Ile Ala Ser Leu Val Gly Leu Ser Ile Val Met Gly Ala Val Leu Arg Arg Ile Pro Leu Ala Val Leu Phe Gly Ile Phe Leu Tyr Met Gly Val Thr Ser Leu Ser Gly Ile Gln Leu Ser Gln Arg Leu Leu Leu Ile Leu Met Pro Ala Lys His His Pro Glu Gln Pro Tyr Val Thr Lys Val Lys Thr Trp Arg Met His Leu Phe Thr Cys Ile Gln Leu Gly Cys Ile Ala Leu Leu Trp Val Val Lys Ser Thr Ala Ala Ser Leu Ala Phe Pro Phe Leu Page 59

Leu Leu Leu Thr Val Pro Leu Arg His Cys Leu Leu Pro Arg Leu Phe 1185 1190 1195 1200 Gln Asp Arg Glu Leu Gln Ala Leu Asp Ser Glu Asp Ala Glu Pro Asn 1205 1210 1215 Phe Asp Glu Asp Gly Gln Asp Glu Tyr Asn Glu Leu His Met Pro Val 1220 1225 1230

<210> 42 <211> 1515 <212> PRT

<213> Homo sapiens

<400> 42 Asp Trp Asn Val Thr Trp Asn Thr Ser Asn Pro Asp Phe Thr Lys Cys
1 10 15 Phe Gln Asn Thr Val Leu Val Trp Val Pro Cys Phe Tyr Leu Trp Ala
20 25 30 _ Cys Phe Pro Phe Tyr Phe Leu Tyr Leu Ser Arg His Asp Arg Gly Tyr 35 40 45 Ile Gln Met Thr Pro Leu Asn Lys Thr Lys Thr Ala Leu Gly Phe Leu 50 _ _ _ 60 _ _ _ Leu Trp Ile Val Cys Trp Ala Asp Leu Phe Tyr Ser Phe Trp Glu Arg 65 70 75 80 Ser Arg Gly Ile Phe Leu Ala Pro Val Phe Leu Val Ser Pro Thr Leu 90 Leu Gly Ile Thr Met Leu Leu Ala Thr Phe Leu Ile Gln Leu Glu Arg 100 105 110 Arg Lys Gly Val Gln Ser Ser Gly Ile Met Leu Thr Phe Trp Leu Val 125 **120** 115 Ala Leu Val Cys Ala Leu Ala Ile Leu Arg Ser Lys Ile Met Thr Ala 135 140 130 Leu Lys Glu Asp Ala Gln Val Asp Leu Phe Arg Asp Ile Thr Phe Tyr 155 145 150 val Tyr Phe Ser Leu Leu Leu Ile Gln Leu Val Leu Ser Cys Phe Ser 170 175 165 Asp Arg Ser Pro Leu Phe Ser Glu Thr Ile His Asp Pro Asn Pro Cys 180 185 190 Pro Glu Ser Ser Ala Ser Phe Leu Ser Arg Ile Thr Phe Trp Trp Ile 195 200 205 _ 195 Thr Gly Leu Ile Val Arg Gly Tyr Arg Gln Pro Leu Glu Gly Ser Asp 210 215 220 Leu Trp Ser Leu Asn Lys Glu Asp Thr Ser Glu Gln Val Val Pro Val 225 230 235 240 Leu Val Lys Asn Trp Lys Lys Glu Cys Ala Lys Thr Arg Lys Gln Pro 245 250 255 Val Lys Val Val Tyr Ser Ser Lys Asp Pro Ala Gln Pro Lys Glu Ser 260 265 270 265 260 Ser Lys Val Asp Ala Asn Glu Glu Val Glu Ala Leu Ile Val Lys Ser 275 280 Pro Gln Lys Glu Trp Asn Pro Ser Leu Phe Lys Val Leu Tyr Lys Thr 295 Phe Gly Pro Tyr Phe Leu Met Ser Phe Phe Phe Lys Ala Ile His Asp 315 310 Leu Met Met Phe Ser Gly Pro Gln Ile Leu Lys Leu Leu Ile Lys Phe 325 330 335 Val Asn Asp Thr Lys Ala Pro Asp Trp Gln Gly Tyr Phe Tyr Thr Val Leu Leu Phe Val Thr Ala Cys Leu Gln Thr Leu Val Leu His Gln Tyr 360 365 Phe His Ile Cys Phe Val Ser Gly Met Arg Ile Lys Thr Ala Val Ile 380 375 Gly Ala Val Tyr Arg Lys Ala Leu Val Ile Thr Asn Ser Ala Arg Lys 390 395 Page 60

GC773-2-seqlist Ser Ser Thr Val Gly Glu Ile Val Asn Leu Met Ser Val Asp Ala Gln Arg Phe Met Asp Leu Ala Thr Tyr Ile Asn Met Ile Trp Ser Ala Pro 420 425 430 Leu Gln Val Ile Leu Ala Leu Tyr Leu Leu Trp Leu Asn Leu Gly Pro Ser Val Leu Ala Gly Val Ala Val Met Val Leu Met Val Pro Val Asn Ala Val Met Ala Met Lys Thr Lys Thr Tyr Gln Val Ala His Met Lys Ser Lys Asp Asn Arg Ile Lys Leu Met Asn Glu Ile Leu Asn Gly Ile Lys Val Leu Lys Leu Tyr Ala Trp Glu Leu Ala Phe Lys Asp Lys Val Leu Ala Ile Arg Gln Glu Glu Leu Lys Val Leu Lys Lys Ser Ala Tyr 515 520 525 Leu Ser Ala Val Gly Thr Phe Thr Trp Val Cys Thr Pro Phe Leu Val Ala Leu Cys Thr Phe Ala Val Tyr Val Thr Ile Asp Glu Asn Asn Ile 545 550 555 560 Leu Asp Ala Gln Thr Ala Phe Val Ser Leu Ala Leu Phe Asn Ile Leu 565 570 575 Arg Phe Pro Leu Asn Ile Leu Pro Met Val Ile Ser Ser Ile Val Gln Ala Ser Val Ser Leu Lys Arg Leu Arg Ile Phe Leu Ser His Glu Glu Leu Glu Pro Asp Ser Ile Glu Arg Arg Pro Val Lys Asp Gly Gly Thr Asn Ser Ile Thr Val Arg Asn Ala Thr Phe Thr Trp Ala Arg Ser Asp Pro Pro Thr Leu Asn Gly Ile Thr Phe Ser Ile Pro Glu Gly Ala 645 650 655 Leu Val Ala Val Val Gly Gln Val Gly Cys Gly Lys Ser Ser Leu Leu Ser Ala Leu Leu Ala Glu Met Asp Lys Val Glu Gly His Val Ala Ile Lys Gly Ser Val Ala Tyr Val Pro Gln Gln Ala Trp Ile Gln Asn Asp Ser Leu Arg Glu Asn Ile Leu Phe Gly Cys Gln Leu Glu Glu Pro Tyr 705 710 715 720 Tyr Arg Ser Val Ile Gln Ala Cys Ala Leu Leu Pro Asp Leu Glu Ile Leu Pro Ser Gly Asp Arg Thr Glu Ile Gly Glu Lys Gly Val Asn Leu Ser Gly Gly Gln Lys Gln Arg Val Ser Leu Ala Arg Ala Val Tyr Ser Asn Ala Asp Ile Tyr Leu <u>Phe</u> Asp Asp Pro Leu <u>Ser</u> Ala Val Asp Ala His Val Gly Lys His Ile Phe Glu Asn Val Ile Gly Pro Lys Gly Met Leu Lys Asn Lys Thr Arg Ile Leu Val Thr His Ser Met Ser Tyr Leu Pro Gln Val Asp Val Ile Ile Val Met Ser Gly Gly Lys Ile Ser Glu Met Gly Ser Tyr Gln Glu Leu Leu Ala Arg Asp Gly Ala Phe Ala Glu Phe Leu Arg Thr Tyr Ala Ser Thr Glu Gln Glu Gln Asp Ala Glu Glu 850 855 860 Asn Gly Val Thr Gly Val Ser Gly Pro Gly Lys Glu Ala Lys Gln Met 865 870 875 880 Glu Asn Gly Met Leu Val Thr Asp Ser Ala Gly Lys Gln Leu Gln Arg Gln Leu Ser Ser Ser Ser Tyr Ser Gly Asp Ile Ser Arg His His

GC773-2-seqlist Asn Ser Thr Ala Glu Leu Gln Lys Ala Glu Ala Lys Lys Glu Glu Thr 915 920 925 Trp Lys Leu Met Glu Ala Asp Lys Ala Gln Thr Gly Gln Val Lys Leu 930 935 940 Ser Val Tyr Trp Asp Tyr Met Lys Ala Ile Gly Leu Phe Ile Ser Phe Leu Ser Ile Phe Leu Phe Met Cys Asn His Val Ser Ala Leu Ala Ser Asn Tyr Trp Leu Ser Leu Trp Thr Asp Asp Pro Ile Val Asn Gly Thr Gln Glu His Thr Lys Val Arg Leu Ser Val Tyr Gly Ala_Leu Gly Ile Ser Gln Gly Ile Ala Val Phe Gly Tyr Ser Met Ala Val Ser Ile Gly Gly Ile Leu Ala Ser Arg Cys Leu His Val Asp Leu Leu His Ser Ile Leu Arg Ser Pro Met Ser Phe Phe Glu Arg Thr Pro Ser Gly Asn Leu Val Asn Arg Phe Ser Lys Glu Leu Asp Thr Val Asp Ser Met Ile Pro Glu Val Ile Lys Met Phe Met Gly Ser Leu Phe Asn Val Ile Gly Ala Cys Ile Val Ile Leu Leu Ala Thr Pro Ile Ala Ala Ile Ile Ile Pro Pro Leu Gly Leu Ile Tyr Phe Phe Val Gln Arg Phe Tyr Val Ala Ser Ser Arg Gln Leu Lys Arg Leu Glu Ser Val Ser Arg Ser Pro Val Tyr 1125 1130 1135 Ser His Phe Asn Glu Thr Leu Leu Gly Val Ser Val Ile Arg Ala Phe Glu Glu Gln Glu Arg Phe Ile Ḥis Gln Ser Asp Leu Lys Val Asp Glu Asn Gln Lys Ala Tyr Tyr Pro Ser Ile Val Ala Asn Arg Trp Leu Ala Val Arg Leu Glu Cys Val Gly Asn Cys Ile Val Leu Phe Ala Ala Leu Phe Ala Val Ile Ser Arg His Ser Leu Ser Ala Gly Leu Val Gly Leu 1205 1210 1215 Ser Val Ser Tyr Ser Leu Gln Val Thr Thr Tyr Leu Asn Trp Leu Val Arg Met Ser Ser Glu Met Glu Thr Asn Ile Val Ala Val Glu Arg Leu Lys Glu Tyr Ser Glu Thr Glu Lys Glu Ala Pro Trp Gln Ile Gln Glu Thr Ala Pro Pro Ser Ser Trp Pro Gln Val Gly Arg Val Glu Phe Arg Asn Tyr Cys Leu Arg Tyr Arg Glu Asp Leu Asp Phe Val Leu Arg His 1285 1290 1295 Ile Asn Val Thr Ile Asn Gly Gly Glu Lys Val Gly Ile Val Gly Arg Thr Gly Ala Gly Lys Ser Ser Leu Thr Leu Gly Leu Phe Arg Ile Asn Glu Ser Ala Glu Gly Glu Ile Ile Asp Gly Ile Asn Ile Ala Lys Ile Gly Leu His Asp Leu Arg Phe Lys Ile Thr Ile Ile Pro Gln Asp Pro Val Leu Phe Ser Gly Ser Leu Arg Met Asn Leu Asp Pro Phe Ser

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Gln Tyr Ser Asp Glu Glu Val Trp Thr Ser Leu Glu Leu Ala His Leu

Lys Asp Phe Val Ser Ala Leu Pro Asp Lys Leu Asp His Glu Cys Ala

GC773-2-seqlist Glu Gly Gly Glu Asn Leu Ser Val Gly Gln Arg Gln Leu Val Cys Leu Ala Arg Ala Leu Leu Arg Lys Thr Lys Ile Leu Val Leu Asp Glu Ala Thr Ala Ala Val Asp Leu Glu Thr Asp Asp Leu Ile Gln Ser Thr Ile Arg Thr Gln Phe Glu Asp Cys Thr Val Leu Thr Ile Ala His Arg Leu Asn Thr Ile Met Asp Tyr Thr Arg Val Ile Val Leu Asp Lys Gly Glu Ile Gln Glu Tyr Gly Ala Pro Ser Asp Leu Leu Gln Gln Arg Gly Leu Phe Tyr Ser Met Ala Lys Asp Ala Gly Leu Val <210> 43 <211> 357 <212> PRT <213> Homo sapiens <400> 43 Phe Cys Arg Ala Gln Asp Leu Glu Tyr Leu Thr Gly Arg Val Trp Val Gly Leu Trp Leu Val Val Phe Val Leu Ala Leu Val Ala Ala Glu Gly Ser Phe Leu Val Arg Tyr Ile Ser Pro Phe Thr Gln Glu Ile Phe Ala Phe Leu Ile Ser Leu Ile Phe Ile Tyr Glu Thr Phe Tyr Lys Leu Tyr Lys Val Phe Thr Glu His Pro Leu Leu Pro Phe Tyr Pro Pro Glu Pro Gly Gly Val Pro Gly Cys Trp Ser Gly Ala Lys Trp Gln Leu Pro Pro Thr Glu Gly Pro Pro Ser Pro Arg Asm Gln Pro Asn Thr Ala Leu Leu Ser Leu Ile Leu Met Leu Gly Thr Phe Phe Ile Ala Phe Phe Leu Arg Lys Phe Arg Asn Ser Arg Phe Leu Gly Gly Lys Ala Arg Arg Ile Ile Gly Asp Phe Gly Ile Pro Ile Ser Ile Leu Val Met Val Leu Val Asp Tyr Ser Ile Thr Asp Thr Tyr Thr Gln Lys Leu Thr Val Pro Thr Gly Leu Ser Val Thr Ser Pro Asp Lys Arg Ser Trp Phe Ile Pro Pro Leu Gly Ser Ala Arg Pro Phe Pro Pro Trp Met Met Val Ala Ala Ala Val Pro Ala Leu Leu Val Leu Ile Leu Ile Phe Met Glu Thr Gln Ile Thr Ala Leu Ile Val Ser Gln Lys Ala Arg Arg Leu Leu Lys Gly Ser Gly Phe His Leu Asp Leu Leu Ile Gly Ser Leu Gly Gly Leu Cys Gly Leu Phe Gly Leu Pro Trp Leu Thr Ala Ala Thr Val Arg Ser Val Thr 260 265 270 His Val Asn Ala Leu Thr Val Met Arg Thr Ala Ile Ala Pro Gly Asp Lys Pro Gln Ile Gln Glu Val Arg Glu Gln Arg Val Thr Gly Val Leu Ile Ala Ser Leu Val Gly Leu Ser Ile Val Met Gly Ala Val Leu Arg Arg Ile Pro Leu Ala Val Leu Phe Gly Ile Phe Leu Tyr Met Gly Val

GC773-2-seqlist Thr Ser Leu Ser Gly Ile Gln Leu Ser Gln Arg Leu Leu Leu Ile Leu 340 345 350 Met Pro Ala Lys His 355 <210> 44 <211> 2147 <212> PRT <213> Homo sapiens <400> 44 Met Ala Phe Trp Thr Gln Leu Met Leu Leu Leu Trp Lys Asn Phe Met 10 Tyr Arg Arg Arg Gln Pro Val Gln Leu Leu Val Glu Leu Leu Trp Pro 20 25 Leu Phe Leu Phe Phe Ile Leu Val Ala Val Arg His Ser His Pro Pro 35 40 45 Leu Glu His His Glu Cys His Phe Pro Asn Lys Pro Leu Pro Ser Ala 50 Gly Thr Val Pro Trp Leu Gln Gly Leu Ile Cys Asn Val Asn Asn Thr 65 70 75 80 Cys Phe Pro Gln Leu Thr Pro Gly Glu Glu Pro Gly Arg Leu Ser Asn 85 90 Phe Asn Asp Ser Leu Val Ser Arg Leu Leu Ala Asp Ala Arg Thr Val 100 105 Leu Gly Gly Ala Ser Ala His Arg Thr Leu Ala Gly Leu Gly Lys Leu 115 120 Ile Ala Thr Leu Arg Ala Ala Arg Ser Thr Ala Gln Pro Gln Pro Thr 135 130 Lys Gln Ser Pro Leu Glu Pro Pro Met Leu Asp Val Ala Glu Leu Leu 155 150 Thr Ser Leu Leu Arg Thr Glu Ser Leu Gly Leu Ala Leu Gly Gln Ala 165 170 Gln Glu Pro Leu His Ser Leu Leu Glu Ala Ala Glu Asp Leu Ala Gln 190 180 185 Glu Leu Leu Ālā Leu Arg Ser Leu Val Glu Leu Arg Ala Leu Leu Gln 195 200 205 195 Arg Pro Arg Gly Thr Ser Gly Pro Leu Glu Leu Ser Glu Ala Leu 210 215 220 Ser Val Arg Gly Pro Ser Ser Thr Val Gly Pro Ser Leu Asn Trp Tyr Glu Ala Ser Asp Leu Met Glu Leu Val Gly Gln Glu Pro Glu Ser 245 250 255 Ala Leu Pro Asp Ser Ser Leu Ser Pro Ala Cys Ser Glu Leu Ile Gly 265 270 260 Ala Leu Asp Ser His Pro Leu Ser Arg Leu Leu Trp Arg Arg Leu Lys 275 280 285 Pro Leu Ile Leu Gly Lys Leu Leu Phe Ala Pro Asp Thr Pro Phe Thr 300 295 290 Arg Lys Leu Met Ala Gln Val Asn Arg Thr Phe Glu Glu Leu Thr Leu 310 Leu Arg Asp Val Arg Glu Val Trp Glu Met Leu Gly Pro Arg Ile Phe 335 325 330 Thr Phe Met Asn Asp Ser Ser Asn Val Ala Met Leu Gln Arg Leu Leu 340 345 350 345 340 Gln Met Gln Asp Glu Gly Arg Arg Gln Pro Arg Pro Gly Gly Arg Asp 355 _ 360 _ 365 _ _ His Met Glu Ala Leu Arg Ser Phe Leu Asp Pro Gly Ser Gly Gly Tyr 370 380 Ser Trp Gln Asp Ala His Ala Asp Val Gly His Leu Val Gly Thr Leu 395

390

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Gly Arg·Val Thr Glu Cys Leu Ser Leu Asp Lys Leu Glu Ala Ala Pro

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GC773-2-seqlist Ser Glu Ala Ala Leu Val Ser Arg Ala Leu Gln Leu Leu Ala Glu His Arg Phe Trp Ala Gly Val Val Phe Leu Gly Pro Glu Asp Ser Ser Asp Pro Thr Glu His Pro Thr Pro Asp Leu Gly Pro Gly His Val Arg Ile Lys Ile Arg Met Asp Ile Asp Val Val Thr Arg Thr Asn Lys Ile Arg Asp Arg Phe Trp Asp Pro Gly Pro Ala Ala Asp Pro Leu Thr Asp Leu Arg Tyr Val Trp Gly Gly Phe Val Tyr Leu Gln Asp Leu Val Glu Arg Ala Ala Val Arg Val Leu Ser Gly Ala Asn Pro Arg Ala Gly Leu Tyr Leu Gln Gln Met Pro Tyr Pro Cys Tyr Val Asp Asp Val Phe Leu Arg 530 535 540 Val Leu Ser Arg Ser Leu Pro Leu Phe Leu Thr Leu Ala Trp Ile Tyr Ser Val Thr Leu Thr Val Lys Ala Val Val Arg Glu Lys Glu Thr Arg 565 570 575 Leu Arg Asp Thr Met Arg Ala Met Gly Leu Ser Arg Ala Val Leu Trp 580 585 590 Leu Gly Trp Phe Leu Ser Cys Leu Gly Pro Phe Leu Leu Ser Ala Ala Leu Leu Val Leu Val Leu Lys Leu Gly Asp Ile Leu Pro Tyr Ser His Pro Gly Val Val Phe Leu Phe Leu Ala Ala Phe Ala Val Ala Thr Val Thr Gln Ser Phe Leu Leu Ser Ala Phe Phe Ser Arg Ala Asn Leu Ala Ala Ala Cys Gly Gly Leu Ala Tyr Phe Ser Leu Tyr Leu Pro Tyr Val Leu Cys Val Ala Trp Arg Asp Arg Leu Pro Ala Gly Gly Arg Val Ala Ala Ser Leu Leu Ser Pro Val Ala Phe Gly Phe Gly Cys Glu Ser Leu Ala Leu Leu Glu Glu Gln Gly Glu Gly Ala Gln Trp His Asn Val Gly Thr Arg Pro Thr Ala Asp Val Phe Ser Leu Ala Gln Val Ser Gly Leu 725 730 735 Leu Leu Leu Asp Ala Ala Leu Tyr Gly Leu Ala Thr Trp Tyr Leu Glu 740 745 750 Ala Val Cys Pro Gly Gln Tyr Gly Ile Pro Glu Pro Trp Asn Phe Pro
755 760 765 Phe Arg Arg Ser Tyr Trp Cys Gly Pro Arg Pro Pro Lys Ser Pro Ala 770 780 Pro Cys Pro Thr Pro Leu Asp Pro Lys Val Leu Val Glu Glu Ala Pro Pro Gly Leu Ser Pro Gly Val Ser Val Arg Ser Leu Glu Lys Arg Phe 805 810 815 81Õ Pro Gly Ser Pro Gln Pro Ala Leu Arg Gly Leu Ser Leu Asp Phe Tyr Gln Gly His Ile Thr Ala Phe Leu Gly His Asn Gly Ala Gly Lys Thr Thr Thr Leu Ser Ile Leu Ser Gly Leu Phe Pro Pro Ser Gly Gly Ser Ala Phe Ile Leu Gly His Asp Val Arg Ser Ser Met Ala Ala Ile Arg 865 870 875 880 Pro His Leu Gly Val Cys Pro Gln Tyr Asn Val Leu Phe Asp Met Leu Thr Val Asp Glu His Val Trp Phe Tyr Gly Arg Leu Lys Gly Leu Ser Ala Ala Val Val Gly Pro Glu Gln Asp Arg Leu Leu Gln Asp Val Gly Page 65

Leu Val Ser Lys Gln Ser Val Gln Thr Arg His Leu Ser Gly Gly Met Gln Arg Lys Leu Ser val Ala Ile Ala Phe val Gly Gly Ser Gln val Val Ile Leu Asp Glu Pro Thr Ala Gly Val Asp Pro Ala Ser Arg Arg Gly Ile Trp Glu Leu Leu Leu Lys Tyr Arg Glu Gly Arg Thr Leu Ile Leu Ser Thr His His Leu Asp Glu Ala Glu Leu Leu Gly Asp Arg Val Ala Val Val Ala Gly Gly Arg Leu Cys Cys Cys Gly Ser Pro Leu Phe 1010 1015 1020 Leu Arg Arg His Leu Gly Ser Gly Tyr Tyr Leu Thr Leu Val Lys Ala Arg Leu Pro Leu Thr Thr Asn Glu Lys Ala Asp Thr Asp Met Glu Gly Ser Val Asp Thr Arg Gln Glu Lys Lys Asn Gly Ser Gln Gly Ser Arg Val Gly Thr Pro Gln Leu Leu Ala Leu Val Gln His Trp Val Pro Gly Ala Arg Leu Val Glu Glu Leu Pro His Glu Leu Val Leu Val Leu Pro Tyr Thr Gly Ala His Asp Gly Ser Phe Ala Thr Leu Phe Arg Glu Leu Asp Thr Arg Leu Ala Glu Leu Arg Leu Thr Gly Tyr Gly Ile Ser Asp Thr Ser Leu Glu Glu Ile Phe Leu Lys Val Val Glu Glu Cys Ala Ala 1140 1145 1150 Asp Thr Asp Met Glu Asp Gly Ser Cys Gly Gln His Leu Cys Thr Gly Ile Ala Gly Leu Asp Val Thr Leu Arg Leu Lys Met Pro Pro Gln Glu Thr Ala Leu Glu Asn Gly Glu Pro Ala Gly Ser Ala Pro Glu Thr Asp Gln Gly Ser Gly Pro Asp Ala Val Gly Arg Val Gln Gly Trp Ala Leu 1205 1210 1215 Thr Arg Gln Gln Leu Gln Ala Leu Leu Leu Lys Arg Phe Leu Leu Ala Arg Arg Ser Arg Arg Gly Leu Phe Ala Gln Ile Val Leu Pro Ala Leu Phe Val Gly Leu Ala Leu Val Phe Ser Leu Ile Val Pro Pro Phe Gly His Tyr Pro Ala Leu Arg Leu Ser Pro Thr Met Tyr Gly Ala Gln Val 1265 1270 1275 128 Ser Phe Phe Ser Glu Asp Ala Pro Gly Asp Pro Gly Arg Ala Arg Leu **9**5 Leu Glu Ala Leu Leu Gln Glu Ala Gly Leu Glu Glu Pro Pro Val Gln His Ser Ser His Arg Phe Ser Ala Pro Glu Val Pro Ala Glu Val Ala Lys Val Leu Ala Ser Gly Asn Trp Thr Pro Glu Ser Pro Ser Pro Ala Cys Gln Cys Ser Arg Pro Gly Ala Arg Arg Leu Leu Pro Asp Cys Pro Ala Ala Ala Gly Gly Pro Pro Pro Gln Ala Val Thr Gly Ser Gly Glu Val Val Gln Asn Leu Thr Gly Arg Asn Leu Ser Asp Phe Leu Val Lys Thr Tyr Pro Arg Leu Val Arg Gln Gly Leu Lys Thr Lys Lys Trp Val Asn Glu Val Arg Tyr Gly Gly Phe Ser Leu Gly Gly Arg Asp Pro Page 66

GC773-2-seqlist Gly Leu Pro Ser Gly Gln Glu Leu Gly Arg Ser Val Glu Glu Leu Trp Ala Leu Leu Ser Pro Leu Pro Gly Gly Ala Leu Asp Arg Val Leu Lys Asn Leu Thr Ala Trp Ala His Ser Leu Asp Ala Gln Asp Ser Leu Lys Ile Trp Phe Asn Asn Lys Gly Trp His Ser Met Val Ala Phe Val Asn Arg Ala Ser Asn Ala Ile Leu Arg Ala His Leu Pro Pro Gly Pro Ala Arg His Ala His Ser Ile Thr Thr Leu Asn His Pro Leu Asn Leu Thr Lys Glu Gln Leu Ser Glu Gly Ala Leu Met Ala Ser Ser Val Asp Val Leu Val Ser Ile Cys Val Val Phe Ala Met Ser Phe Val Pro Ala Ser Phe Thr Leu Val Leu Ile Glu Glu Arg Val Thr Arg Ala Lys His Leu Gln Leu Met Gly Gly Leu Ser Pro Thr Leu Tyr Trp Leu Gly Asn Phe Leu Trp Asp Met Cys Asn Tyr Leu Val Pro Ala Cys Ile Val Val Leu Ile Phe Leu Ala Phe Gln Gln Arg Ala Tyr Val Ala Pro Ala Asn Leu Pro Ala Leu Leu Leu Leu Leu Leu Tyr Gly Trp Ser Ile Thr Pro Leu Met Tyr Pro Ala Ser Phe Phe Phe Ser Val Pro Ser Thr Ala Tyr Val Val Leu Thr Cys Ile Asn Leu Phe Ile Gly Ile Asn Gly Ser Met Ala Thr Phe Val Leu Glu Leu Phe Ser Asp Gln Gln Lys Leu Gln Glu Val Ser Arg Ile Leu Lys Gln Val Phe Leu Ile Phe Pro His Phe Cys Leu Gly Arg Gly Leu Ile Asp Met Val Arg Asn Gln Ala Met Ala Asp Ala Phe Glu Arg Leu Gly Asp Arg Gln Phe Gln Ser Pro Leu Arg Trp 20 Glu Val Val Gly Lys Asn Leu Leu Ala Met Val Ile Gln Gly Pro Leu Phe Leu Leu Phe Thr Leu Leu Gln His Arg Ser Gln Leu Leu Pro 1745 1750 1755 176 Gln Pro Arg Val Arg Ser Leu Pro Leu Leu Gly Glu Glu Asp Glu Asp Val Ala Arg Glu Arg Glu Arg Val Val Gln Gly Ala Thr Gln Gly Asp Val Leu Val Leu Arg Asn Leu Thr Lys Val Tyr Arg Gly Gln Arg Met Pro Ala Val Asp Arg Leu Cys Leu Gly Ile Pro Pro Gly Glu Cys Phe Gly Leu Leu Gly Val Asn Gly Ala Gly Lys Thr Ser Thr Phe Arg Met Val Thr Gly Asp Thr Leu Ala Ser Arg Gly Glu Ala Val Leu Ala Gly His Ser Val Ala Arg Glu Pro Ser Ala Ala His Leu Ser Met Gly Tyr Cys Pro Gln Ser Asp Ala Ile Phe Glu Leu Leu Thr Gly Arg Glu His Leu Glu Leu Leu Ala Arg Leu Arg Gly Val Pro Glu Ala Gln Val Ala Gln Thr Ala Gly Ser Gly Leu Ala Arg Leu Gly Leu Ser Trp Tyr Ala Asp Arg Pro Ala Gly Thr Tyr Ser Gly Gly Asn Lys Arg Lys Leu Ala Page 67

GC773-2-seqlist 1930 1935 1925 Thr Ala Leu Ala Leu Val Gly Asp Pro Ala Val Val Phe Leu Asp Glu 1945 1950 1940 Pro Thr Thr Gly Met Asp Pro Ser Ala Arg Arg Phe Leu Trp Asn Ser 1955 1960 1965 Leu Leu Ala Val Val Arg Glu Gly Arg Ser Val Met Leu Thr Ser His 1970 1975 1980 Ser Met Glu Glu Cys Glu Ala Leu Cys Ser Arg Leu Ala Ile Met Val 1995 1985 1990 Asn Gly Arg Phe Arg Cys Leu Gly Ser Pro Gln His Leu Lys Gly Arg 2005 2010 2015 Phe Ala Ala Gly His Thr Leu Thr Leu Arg Val Pro Ala Ala Arg Ser 2020 2025 2030 Gln Pro Ala Ala Ala Phe Val Ala Ala Glu Phe Pro Gly Ala Glu Leu 2035 2040 2045 Arg Glu Ala His Gly Gly Arg Leu Arg Phe Gln Leu Pro Pro Gly Gly 2050 2060 2060 Arg Cys Ala Leu Ala Arg Val Phe Gly Glu Leu Ala Val His Gly Ala 2065 2070 2075 208 2080 Glu His Gly Val Glu Asp Phe Ser Val Ser Gln Thr Met Leu Glu Glu 2085 2090 2095 Val Phe Leu Tyr Phe Ser Lys Asp Gln Gly Lys Asp Glu Asp Thr Glu 2100 2105 2110 Glu Gln Lys Glu Ala Gly Val Gly Val Asp Pro Ala Pro Gly Leu Gln 2115 2120 2125 His Pro Lys Arg Val Ser Gln Phe Leu Asp Asp Pro Ser Thr Ala Glu 2130 2135 2140 Thr Val Leu 2145 <210> 45 <211> 650 <212> PRT <213> Homo sapiens

<400> 45

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100 105 110 100 Asn Met His Tyr Gly Cys Ala Ser Gly Tyr Lys Thr Thr Gly Gly Lys 115 120 Asp Glu Glu Val Val Gln Cys Leu Ser Asp Gly Trp Ser Ser Gln Pro 130 135 140 Thr Cys Arg Lys Glu His Glu Thr Cys Leu Ala Pro Glu Leu Tyr Asn 145 150 155 160 Gly Asn Tyr Ser Thr Thr Gln Lys Thr Phe Lys Val Lys Asp Lys Val Gln Tyr Glu Cys Ala Thr Gly Tyr Tyr Thr Ala Gly Gly Lys Lys Thr 180 185 190 Glu Glu Val Glu Cys Leu Thr Tyr Gly Trp Ser Leu Thr Pro Lys Cys 200 Thr Lys Leu Lys Cys Ser Ser Leu Arg Leu Ile Glu Asn Gly Tyr Phe Page 68

GC773-2-seqlist 215 His Pro Val Lys Gln Thr Tyr Glu Glu Gly Asp Val Val Gln Phe Phe 225 230 235 240 Cys His Glu Asn Tyr Tyr Leu Ser Gly Ser Asp Leu Ile Gln Cys Tyr
245 250 255 Asn Phe Gly Trp Tyr Pro Glu Ser Pro Val Cys Glu Gly Arg Arg Asn 260 265 270 265 260 Arg Cys Pro Pro Pro Leu Pro Ile Asn Ser Lys Ile Gln Thr His 280 285 275 Thr Thr Tyr Arg His Gly Glu Ile Val His Ile Glu Cys Glu Leu 290 295 300 Asn Phe Glu Ile His Gly Ser Ala Glu Ile Arg Cys Glu Asp Gly Lys 305 310 315 320 310 Ser Thr Glu Pro Pro Lys Cys Ile Glu Gly Gln Glu Lys Val Ala Cys 330 Glu Glu Pro Pro Phe Ile Glu Asn Gly Ala Ala Asn Leu His Ser Lys 340 345 350 Ile Tyr Tyr Asn Gly Asp Lys Val Thr Tyr Ala Cys Lys Ser Gly Tyr 355 360 365 Leu Leu His Gly Ser Asn Glu Ile Thr Cys Asn Arg Gly Lys Trp Thr 370 375 380 Leu Pro Pro Glu Cys Val Glu Asn Asn Glu Asn Cys Lys His Pro Pro 390 395 385 Val Val Met Asn Gly Ala Val Ala Asp Gly Ile Leu Ala Ser Tyr Ala 415 410 405 Thr Gly Ser Ser Val Glu Tyr Arg Cys Asn Glu Tyr Tyr Leu Leu Arg 425 420 430 Gly Ser Lys Ile Ser Arg Cys Glu Gln Gly Lys Trp Ser Ser Pro Pro 440 445 435 Val Cys Leu Glu Pro Cys Thr Val Asn Val Asp Tyr Met Asn Arg Asn 450 460 455 Asn Ile Glu Met Lys Trp Lys Tyr Glu Gly Lys Val Leu His Gly Asp 465 470 475 480 Leu Ile Asp Phe Val Cys Lys Gln Gly Tyr Asp Leu Ser Pro Leu Thr 490 Pro Leu Ser Glu Leu Ser Val Gln Cys Asn Arg Gly Glu Val Lys Tyr 505 510 500 Pro Leu Cys Thr Arg Lys Glu Ser Lys Gly Met Cys Thr Ser Pro Pro 515 _ _ 520 _ 525 _ _ 525 _ _ _ 525 Leu Ile Lys His Gly Val Ile Ile Ser Ser Thr Val Asp Thr Tyr Glu 530 540 Asn Gly Ser Ser Val Glu Tyr Arg Cys Phe Asp His His Phe Leu Glu 555 550 Gly Ser Arg Glu Ala Tyr Cys Leu Asp Gly Met Trp Thr Thr Pro Pro 570 575 565 Leu Cys Leu Glu Pro Cys Thr Leu Ser Phe Thr Glu Met Glu Lys Asn 585 590 580 Asn Leu Leu Leu Lys Trp Asp Phe Asp Asn Arg Pro His Ile Leu His 605 595 600 Gly Glu Tyr Ile Glu Phe Ile Cys Arg Gly Asp Thr Tyr Pro Ala Glu 610 615 620 Leu Tyr Ile Thr Gly Ser Ile Leu Arg Met Gln Cys Asp Arg Gly Gln 640 630 635 Leu Lys Tyr Pro Arg Cys Ile Pro Arg Gln 645 650 <210> 46 <211> 2496 <212> PRT

<213> Homo sapiens

GC773-2-seqlist 10 Arg Arg Pro Gln Arg Ser Leu Leu Leu Leu Gln Leu Leu Leu Val 20 25 30 Ala Ala Pro Gly Ser Thr Gln Ala Gln Ala Ala Pro Phe Pro Glu Leu 35 40 45 Cys Ser Tyr Thr Trp Glu Ala Val Asp Thr Lys Asn Asn Val Leu Tyr 55 Lys Ile Asn Ile Cys Gly Ser Val Asp Ile Val Gln Cys Gly Pro Ser 65 70 75 80 Ser Ala Val Cys Met His Asp Leu Lys Thr Arg Thr Tyr His Ser Val 90 Gly Asp Ser Val Leu Arg Ser Ala Thr Arg Ser Leu Leu Glu Phe Asn 100 105 110 Thr Thr Val Ser Cys Asp Gln Gln Gly Thr Asn His Arg Val Gln Ser 115 120 125 Ser Ile Ala Phe Leu Cys Gly Lys Thr Leu Gly Thr Pro Glu Phe Val Thr Ala Thr Glu Cys Val His Tyr Phe Glu Trp Arg Thr Thr Ala Ala 145 150 155 160 150 145 Cys Lys Lys Asp Ile Phe Lys Ala Asn Lys Glu Val Pro Cys Tyr Val 165 170 175 Phe Asp Glu Glu Leu Arg Lys His Asp Leu Asn Pro Leu Ile Lys Leu 180 185 190 Ser Gly Ala Tyr Leu Val Asp Asp Ser Asp Pro Asp Thr Ser Leu Phe 200 Ile Asn Val Cys Arg Asp Ile Asp Thr Leu Arg Asp Pro Gly Ser Gln 220 215 Leu Arg Ala Cys Pro Pro Gly Thr Ala Ala Cys Leu Val Arg Gly His 235 230 235 230 225 Gln Ala Phe Asp Val Gly Gln Pro Arg Asp Gly Leu Lys Leu Val Arg 250 245 Lys Asp Arg Leu Val Leu Ser Tyr Val Arg Glu Glu Ala Gly Lys Leu 260 265 Asp Phe Cys Asp Gly His Ser Pro Ala Val Thr Ile Thr Phe Val Cys 280 Pro Ser Glu Arg Arg Glu Gly Thr Ile Pro Lys Leu Thr Ala Lys Ser 290 295 300 Asn Cys Arg Tyr Glu Ile Glu Trp Ile Thr Glu Tyr Ala Cys His Arg 305 310 315 _ _ _ 320 Asp Tyr Leu Glu Ser Lys Thr Cys Ser Leu Ser Gly Glu Gln Gln Asp 325 335 Val Ser Ile Asp Leu Thr Pro Leu Ala Gln Ser Gly Gly Ser Ser Tyr 340 345 350 Ile Ser Asp Gly Lys Glu Tyr Leu Phe Tyr Leu Asn Val Cys Gly Glu Thr Glu Ile Gln Phe Cys Asn Lys Lys Gln Ala Ala Val Cys Gln Val 375 380 Lys Lys Ser Asp Thr Ser Gln Val Lys Ala Ala Gly Arg Tyr His Asn 385 390 395 400 Gln Thr Leu Arg Tyr Ser Asp Gly Asp Leu Thr Leu Ile Tyr Phe Gly 405 410 415 Gly Asp Glu Cys Ser Ser Gly Phe Gln Arg Met Ser Val Ile Asn Phe 425 Glu Cys Asn Lys Thr Ala Gly Asn Asp Gly Lys Gly Thr Pro Val Phe 435 440 445 Thr Gly Glu Val Asp Cys Thr Tyr Phe Phe Thr Trp Asp Thr Glu Tyr 450 455 460 Ala Cys Val Lys Glu Lys Glu Asp Leu Leu Cys Gly Ala Thr Asp Gly 465 470 475 480 Lys Lys Arg Tyr Asp Leu Ser Ala Leu Val Arg His Ala Glu Pro Glu
485 490 495 Gln Asn Trp Glu Ala Val Asp Gly Ser Gln Thr Glu Thr Glu Lys Lys 500 505 510

GC773-2-seqlist His Phe Phe Ile Asn Ile Cys His Arg Val Leu Gln Glu Gly Lys Ala 515 520 _ _ _ 525 Arg Gly Cys Pro Glu Asp Ala Ala Val Cys Ala Val Asp Lys Asn Gly 530 540 Ser Lys Asn Leu Gly Lys Phe Ile Ser Ser Pro Met Lys Glu Lys Gly 545 550 555 560 Asn Ile Gln Leu Ser Tyr Ser Asp Gly Asp Asp Cys Gly His Gly Lys 570 565 Lys Ile Lys Thr Asn Ile Thr Leu Val Cys Lys Pro Gly Asp Leu Glu 590 580 585 Ser Ala Pro Val Leu Arg Thr Ser Gly Glu Gly Gly Cys Phe Tyr Glu 595 600 Phe Glu Trp His Thr Ala Ala Cys Val Leu Ser Lys Thr Glu Gly 615 620 610 Glu Asn Cys Thr Val Phe Asp Ser Gln Ala Gly Phe Ser Phe Asp Leu 630 Ser Pro Leu Thr Lys Lys Asn Gly Ala Tyr Lys Val Glu Thr Lys Lys 645 650 655 Tyr Asp Phe Tyr Ile Asn Val Cys Gly Pro Val Ser Val Ser Pro Cys
660 665 670 Gln Pro Asp Ser Gly Ala Cys Gln Val Ala Lys Arg Gln Val Ala Ser 675 680 _ 685 His Asp Glu Lys Thr Trp Asn Leu Gly Leu Ser Asn Ala Lys Leu Ser 695 690 700 Tyr Tyr Asp Gly Met Ile Gln Leu Asn Tyr Arg Gly Gly Thr Pro Tyr 705 710 715 720 Asn Asn Glu Arg His Thr Pro Arg Ala Thr Leu Ile Thr Phe Leu Cys 725 730 Asp Arg Asp Ala Gly Val Gly Phe Pro Glu Tyr Gln Glu Glu Asp Asn 740 745 750 _ _ _ Tyr Asn Phe Arg Trp Tyr Thr Ser Tyr Ala Cys Pro Glu Glu 755 _ _ _ 760 _ . 765 _ Pro Leu Glu Cys Val Val Thr Asp Pro Ser Thr Leu Glu Gln Tyr Asp Leu Ser Ser Leu Ala Lys Ser Glu Gly Gly Leu Gly Gly Asn Trp Tyr 785 790 795 800 Ala Met Asp Asn Ser Gly Glu His Val Thr Trp Arg Lys Tyr Tyr Ile 805 810 815 805 810 Asn Val Cys Arg Pro Leu Asn Pro Val Pro Gly Cys Asn Arg Tyr Ala 820 825 830 Ser Ala Cys Gln Met Lys Tyr Glu Lys Asp Gln Gly Ser Phe Thr Glu 835 840 845 Val Val Ser Ile Ser Asn Leu Gly Met Ala Lys Thr Gly Pro Val Val 855 860 Glu Asp Ser Gly Ser Leu Leu Glu Tyr Val Asn Gly Ser Ala Cys 875 865 870 Thr Thr Ser Asp Gly Arg Gln Thr Thr Tyr Thr Thr Arg Ile His Leu 885 890 Val Cys Ser Arg Gly Arg Leu Asn Ser His Pro Ile Phe Ser Leu Asn 90Õ 905 910 Trp Glu Cys Val Val Ser Phe Leu Trp Asn Thr Glu Ala Ala Cys Pro 925 920 Ile Gln Thr Thr Asp Thr Asp Gln Ala Cys Ser Ile Arg Asp Pro 940 930 935 Asn Ser Gly Phe Val Phe Asn Leu Asn Pro Leu Asn Ser Ser Gln Gly 945 950 955 960 950 960 Tyr Asn Val Ser Gly Ile Gly Lys Ile Phe Met Phe Asn Val Cys Gly
965 970 975 Thr Met Pro Val Cys Gly Thr Ile Leu Gly Lys Pro Ala Ser Gly Cys 980 985 990 Glu Ala Glu Thr Gln Thr Glu Glu Leu Lys Asn Trp Lys Pro Ala Arg 1000 1005 Pro Val Gly Ile Glu Lys Ser Leu Gln Leu Ser Thr Glu Gly Phe Ile Page 71

Thr Leu Thr Tyr Lys Gly Pro Leu Ser Ala Lys Gly Thr Ala Asp Ala 1025 1030 1035 104 Phe Ile Val Arg Phe Val Cys Asn Asp Asp Val Tyr Ser Gly Pro Leu 1045 1050 1055 Lys Phe Leu His Gln Asp Ile Asp Ser Gly Gln Gly Ile Arg Asn Thr 1060 1065 1070 Tyr Phe Glu Phe Glu Thr Ala Leu Ala Cys Val Pro Ser Pro Val Asp 1075 1080 1085 Cys Gln Val Thr Asp Leu Ala Gly Asn Glu Tyr Asp Leu Thr Gly Leu 1090 1095 1100 Ser Thr Val Arg Lys Pro Trp Thr Ala Val Asp Thr Ser Val Asp Gly 1105 1110 1115 112 Arg Lys Arg Thr Phe Tyr Leu Ser Val Cys Asn Pro Leu Pro Tyr Ile 1125 1130 1135 Pro Gly Cys Gln Gly Asp Ala Val Gly Ser Cys Leu Val Ser Glu Gly Asn Ser Trp Asn Leu Gly Val Val Gln Met Ser Pro Gln Ala Ala 1155 1160 1165 Asn Gly Ser Leu Ser Ile Met Tyr Val Asn Gly Asp Lys Cys Gly Asn 1170 1180 Gln Arg Phe Ser Thr Arg Ile Thr Phe Glu Cys Ala Gln Ile Ser Gly 1185 1190 1195 120 Ser Pro Ala Phe Gln Leu Gln Asp Gly Cys Glu Tyr Val Phe Ile Trp Arg Thr Val Glu Ala Cys Pro Val Val Arg Val Glu Gly Asp Asn Cys Glu Val Lys Asp Pro Arg His Gly Asn Leu Tyr Asp Leu Lys Pro Leu 1235 1240 1245 Gly Leu Asn Asp Thr Ile Val Ser Ala Gly Glu Tyr Thr Tyr Tyr Phe 1250 1260 Arg Val Cys Gly Lys Leu Ser Ser Asp Val Cys Pro Thr Ser Asp Lys 1265 1270 1275 128 Ser Lys Val Val Ser Ser Cys Gln Glu Lys Arg Glu Pro Gln Gly Phe 1285 1290 1295 His Lys Val Ala Gly Leu Leu Thr Gln Lys Leu Thr Tyr Glu Asn Gly Leu Leu Lys Met Asn Phe Thr Gly Gly Asp Thr Cys His Lys Val Tyr 1315 1320 1325 Gln Arg Ser Thr Ala Ile Phe Phe Tyr Cys Asp Arg Gly Thr Gln Arg 1330 1335 1340 Pro Val Phe Leu Lys Glu Thr Ser Asp Cys Ser Tyr Leu Phe Glu Trp Arg Thr Gln Tyr Ala Cys Pro Pro Phe Asp Leu Thr Glu Cys Ser Phe 1365 Lys Asp Gly Ala Gly Asn Ser Phe Asp Leu Ser Ser Leu Ser Arg Tyr Ser Asp Asn Trp Glu Ala Ile Thr Gly Thr Gly Asp Pro Glu His Tyr 1395 1400 1405 Leu Ile Asn Val Cys Lys Ser Leu Ala Pro Gln Ala Gly Thr Glu Pro Cys Pro Pro Glu Ala Ala Ala Cys Leu Leu Gly Gly Ser Lys Pro Val Asn Leu Gly Arg Val Arg Asp Gly Pro Gln Trp Arg Asp Gly Ile Ile 1445 1450 1455 Val Leu Lys Tyr Val Asp Gly Asp Leu Cys Pro Asp Gly Ile Arg Lys 1460 1465 1470 Lys Ser Thr Thr Ile Arg Phe Thr Cys Ser Glu Ser Gln Val Asn Ser 1475 1480 1485 Arg Pro Met Phe Ile Ser Ala Val Glu Asp Cys Glu Tyr Thr Phe Ala 1490 1500 Trp Pro Thr Ala Thr Ala Cys Pro Met Lys Ser Asn Glu His Asp Asp 1505 Page 72

GC773-2-sealist Cys Gln Val Thr Asn Pro Ser Thr Gly His Leu Phe Asp Leu Ser Ser Leu Ser Gly Arg Ala Gly Phe Thr Ala Ala Tyr Ser Glu Lys Gly Leu 1540 1550 val Tyr Met Ser Ile Cys Gly Glu Asn Glu Asn Cys Pro Pro Gly Val Gly Ala Cys Phe Gly Gln Thr Arg Ile Ser Val Gly Lys Ala Asn Lys Arg Leu Arg Tyr Val Asp Gln Val Leu Gln Leu Val Tyr Lys Asp Gly Ser Pro Cys Pro Ser Lys Ser Gly Leu Ser Tyr Lys Ser Val Ile Ser Phe Val Cys Arg Pro Glu Ala Arg Pro Thr Asn Arg Pro Met Leu Ile Ser Leu Asp Lys Gln Thr Cys Thr Leu Phe Phe Ser Trp His Thr Pro Leu Ala Cys Glu Gln Ala Thr Glu Cys Ser Val Arg Asn Gly Ser Ser Ile Val Asp Leu Ser Pro Leu Ile His Arg Thr Gly Gly Tyr Glu Ala Tyr Asp Glu Ser Glu Asp Asp Ala Ser Asp Thr Asn Pro Asp Phe Tyr
1685 1690 1695 Ile Asn Ile Cys Gln Pro Leu Asn Pro Met His Gly Val Pro Cys Pro Ala Gly Ala Ala Val Cys Lys Val Pro Ile Asp Gly Pro Pro Ile Asp Ile Gly Arg Val Ala Gly Pro Pro Ile Leu Asn Pro Ile Ala Asn Glu Ile Tyr Leu Asn Phe Glu Ser Ser Thr Pro Cys Leu Ala Asp Lys His Phe Asn Tyr Thr Ser Leu Ile Ala Phe His Cys Lys Arg Gly Val Ser Met Gly Thr Pro Lys Leu Leu Arg Thr Ser Glu Cys Asp Phe Val Phe Glu Trp Glu Thr Pro Val Val Cys Pro Asp Glu Val Arg Met Asp Gly Cys Thr Leu Thr Asp Glu Gln Leu Leu Tyr Ser Phe Asn Leu Ser Ser Leu Ser Thr Ser Thr Phe Lys Val Thr Arg Asp Ser Arg Thr Tyr Ser val Gly val Cys Thr Phe Ala Val Gly Pro Glu Gln Gly Gly Cys Lys Asp Gly Gly Val Cys Leu Leu Ser Gly Thr Lys Gly Ala Ser Phe Gly Arg Leu Gln Ser Met Lys Leu Asp Tyr Arg His Gln Asp Glu Ala Val Val Leu Ser Tyr Val Asn Gly Asp Arg Cys Pro Pro Glu Thr Asp Asp Gly Val Pro Cys Val Phe Pro Phe Ile Phe Asn Gly Lys Ser Tyr Glu Glu Cys Ile Ile Glu Ser Arg Ala Lys Leu Trp Cys Ser Thr Thr Ala Asp Tyr Asp Arg Asp His Glu Trp Gly Phe Cys Arg His Ser Asn Ser Tyr Arg Thr Ser Ser Ile Ile Phe Lys Cys Asp Glu Asp Glu Asp Ile Gly Arg Pro Gln Val Phe Ser Glu Val Arg Gly Cys Asp Val Thr Phe 1970 1975 1980 Glu Trp Lys Thr Lys Val Val Cys Pro Pro Lys Lys Leu Glu Cys Lys Phe Val Gln Lys His Lys Thr Tyr Asp Leu Arg Leu Leu Ser Ser Leu Thr Gly Ser Trp Ser Leu Val His Asn Gly Val Ser Tyr Tyr Ile Asn Page 73

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2025 2030 2020 Leu Cys Gln Lys Ile Tyr Lys Gly Pro Leu Gly Cys Ser Glu Arg Ala 2035 2040 2045 Ser Ile Cys Arg Arg Thr Thr Thr Gly Asp Val Gln Val Leu Gly Leu 2050 2060 Val His Thr Gln Lys Leu Gly Val Ile Gly Asp Lys Val Val Thr 2075 2070 Tyr Ser Lys Gly Tyr Pro Cys Gly Gly Asn Lys Thr Ala Ser Ser Val 2085 2090 2095 2090 2095 2085 Ile Glu Leu Thr Cys Thr Lys Thr Val Gly Arg Pro Ala Phe Lys Arg 2100 2105 2110 Phe Asp Ile Asp Ser Cys Thr Tyr Tyr Phe Ser Trp Asp Ser Arg Ala 2115 2120 2125 Ala Cys Ala Val Lys Pro Gln Glu Val Gln Met Val Asn Gly Thr Ile 2130 2135 2140 Thr Asn Pro Ile Asn Gly Lys Ser Phe Ser Leu Gly Asp Ile Tyr Phe 2145 2150 2155 216 2150 2155 Lys Leu Phe Arg Ala Ser Gly Asp Met Arg Thr Asn Gly Asp Asn Tyr 2165 2170 2175 Leu Tyr Glu Ile Gln Leu Ser Ser Ile Thr Ser Ser Arg Asn Pro Ala 2180 2185 2190 Cys Ser Gly Ala Asn Ile Cys Gln Val Lys Pro Asn Asp Gln His Phe 2195 2200 2205 Ser Arg Lys Val Gly Thr Ser Asp Lys Thr Lys Tyr Tyr Leu Gln Asp 2210 2215 2220 Gly Asp Leu Asp Val Val Phe Ala Ser Ser Ser Lys Cys Gly Lys Asp 2230 2235 2240 Lys Thr Lys Ser Val Ser Ser Thr Ile Phe Phe His Cys Asp Pro Leu 2245 2250 2255 Val Glu Asp Gly Ile Pro Glu Phe Ser His Glu Thr Ala Asp Cys Gln 2265 2270 Tyr Leu Phe Ser Trp Tyr Thr Ser Ala Val Cys Pro Leu Gly Val Gly
2275 2280 2285 Phe Asp Ser Glu Asn Pro Gly Asp Asp Gly Gln Met His Lys Gly Leu 2290 2300 2295 2300 2290 Ser Glu Arg Ser Gln Ala Val Gly Ala Val Leu Ser Leu Leu Leu Val 2305 2310 2315 232 2315 2305 2310 2320 Ala Leu Thr Cys Cys Leu Leu Ala Leu Leu Leu Tyr Lys Lys Glu Arg 2325 2330 2335 Arg Glu Thr Val Ile Ser Lys Leu Thr Thr Cys Cys Arg Arg Ser Ser 2340 2345 2350 Asn Val Ser Tyr Lys Tyr Ser Lys Val Asn Lys Glu Glu Glu Thr Asp 2355 2360 2365 2365 Glu Asn Glu Thr Glu Trp Leu Met Glu Glu Ile Gln Leu Pro Pro 2370 2375 2380 2375 2380 2370 Arg Gln Gly Lys Glu Gly Gln Glu Asn Gly His Ile Thr Thr Lys Ser 2385 2390 2395 Val Lys Ala Leu Ser Ser Leu His Gly Asp Asp Gln Asp Ser Glu Asp 2415 Glu Val Leu Thr Ile Pro Glu Val Lys Val His Ser Gly Arg Gly Ala 2420 2425 2430 Gly Ala Glu Ser Ser His Pro Val Arg Asn Ala Gln Ser Asn Ala Leu 2435 2440 2445 Gln Glu Arg Glu Asp Asp Arg Val Gly Leu Val Arg Gly Glu Lys Ala 2450 _ 2455 _ _ 2460 _ Arg Lys Gly Lys Ser Ser Ser Ala Gln Gln Lys Thr Val Ser Ser Thr 2465 2470 2475 248 2480 Lys Leu Val Ser Phe His Asp Asp Ser Asp Glu Asp Leu Leu His Ile 2485 2490 2495

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GC773-2-seqlist Pro Gly Glu Met Gln Arg Leu Ser Phe Ala Arg Leu Phe Tyr Leu Gln 490 485 Pro Lys Tyr Ala Val Leu Asp Glu Ala Thr Ser Ala Leu Thr Glu Glu 500 505 510 val Glu Ser Glu Leu Tyr Arg Ile Gly Gln Gln Leu Gly Met Thr Phe 515 520 525 Ile Ser Val Gly His Arg Gln Ser Leu Glu Lys Phe His Ser Leu Val 535 540 Leu Lys Leu Cys Gly Gly Gly Arg Trp Glu Leu Met Arg Ile Lys 545 Glu

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GC773-2-sealist

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<210> 56

GC773-2-seqlist His Gly Phe Tyr Leu Leu Gly Thr Pro Val Leu Ser Cys Gln Gly Asp
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455
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GC773-2-seqlist Asn Ala Tyr Val Leu Ala Val Leu Leu Phe Leu Ala Leu Leu Gln Arg Thr Phe Leu Gln Ala Ser Tyr Tyr Val Ala Ile Glu Thr Gly Ile 370 _ 375 380 Asn Leu Arg Gly Ala Ile Gln Thr Lys Ile Tyr Asn Lys Ile Met His Leu Ser Thr Ser Asn Leu Ser Met Gly Glu Met Thr Ala Gly Gln Ile Cys Asn Leu Val Ala Ile Asp Thr Asn Gln Leu Met Trp Phe Phe Phe Leu Cys Pro Asn Leu Trp Ala Met Pro Val Gln Ile Ile Val Gly Val Ile Leu Leu Tyr Tyr Ile Leu Gly Val Ser Ala Leu Ile Gly Ala Ala Val Ile Ile Leu Leu Ala Pro Val Gln Tyr Phe Val Ala Thr Lys Leu Ser Gln Ala Gln Arg Ser Thr Leu Glu Tyr Ser Asn Glu Arg Leu Lys Gln Thr Asn Glu Met Leu Arg Gly Ile Lys Leu Leu Lys Leu Tyr Ala 500 505 510 Trp Glu Asn Ile Phe Arg Thr Arg Val Glu Thr Thr Arg Arg Lys Glu 515 _ 520 _ 525 Met Thr Ser Leu Arg Ala Phe Ala Ile Tyr Thr Ser Ile Ser Ile Phe 530 540 Met Asn Thr Ala Ile Pro Ile Ala Ala Val Leu Ile Thr Phe Val Gly His Val Ser Phe Phe Lys Glu Ala Asp Phe Ser Pro Ser Val Ala Phe Ala Ser Leu Ser Leu Phe His Ile Leu Val Thr Pro Leu Phe Leu Leu Ser Ser Val Val Arg Ser Thr Val Lys Ala Leu Val Ser Val Gln Lys Leu Ser Glu Phe Leu Ser Ser Ala Glu Ile Arg Glu Glu Gln Cys Ala Pro His Glu Pro Thr Pro Gln Gly Pro Ala Ser Lys Tyr Gln Ala Val Pro Leu Arg Val Val Asn Arg Lys Arg Pro Ala Arg Glu Asp Cys Arg 645 650 655 Gly Leu Thr Gly Pro Leu Gln Ser Leu Val Pro Ser Ala Asp Gly Asp Ala Asp Asn Cys Cys Val Gln Ile Met Gly Gly Tyr Phe Thr Trp Thr Pro Asp Gly Ile Pro Thr Leu Ser Asn Ile Thr Ile Arg Ile Pro Arg Gly Gln Leu Thr Met Ile Val Gly Gln Val Gly Cys Gly Lys Ser Ser 705 710 715 720 Leu Leu Ala Ala Leu Gly Glu Met Gln Lys Val Ser Gly Ala Val Phe Trp Ser Ser Met Pro Phe Leu Pro Cys Cys Ser Pro Glu Arg Glu Thr Ala Thr Asp Leu Asp Ile Arg Lys Arg Gly Pro Val Ala Tyr Ala Ser Gln Lys Pro Trp Leu Leu Asn Ala Thr Val Glu Glu Asn Ile Ile Phe Glu Ser Pro Phe Asn Lys Gln Arg Tyr Lys Met Val Ile Glu Ala 785 790 795 800 Cys Ser Leu Gln Pro Asp Ile Asp Ile Leu Pro His Gly Asp Gln Thr Gln Ile Gly Glu Arg Gly Ile Asn Leu Ser Gly Gly Gln Arg Gln Arg Ile Ser Val Ala Arg Ala Leu Tyr Gln His Ala Asn Val Val Phe Leu

Asp Asp Pro Phe Ser Ala Leu Asp Ile His Leu Ser Asp His Leu Met

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GC773-2-seqlist Lys Pro Val Leu Lys His Val Asn Ala Leu Ile Ala Pro Gly Gln Lys Ile Gly Ile Cys Gly Arg Thr Gly Ser Gly Lys Ser Ser Phe Ser Leu Ala Phe Phe Arg Met Val Asp Thr Phe Glu Gly His Ile Ile Asp Gly Ile Asp Ile Ala Lys Leu Pro Leu His Thr Leu Arg Ser Arg Leu Ser Ile Ile Leu Gln Asp Pro Val Leu Phe Ser Gly Thr Ile Arg Phe Asn Leu Asp Pro Glu Arg Lys Cys Ser Asp Ser Thr Leu Trp Glu Ala Leu Glu Ile Ala Gln Leu Lys Leu Val Val Lys Ala Leu Pro Gly Gly Leu Asp Ala Ile Ile Thr Glu Gly Gly Glu Asn Phe Ser Gln Gly Gln Arg Gln Leu Phe Cys Leu Ala Arg Ala Phe Val Arg Lys Thr Ser Ile Phe Ile Met Asp Glu Ala Thr Ala Ser Ile Asp Met Ala Thr Glu Asn Ile Leu Gln Lys Val Val Met Thr Ala Phe Ala Asp Arg Thr Val Val Thr Ile Ala His Arg Val His Thr Ile Leu Ser Ala Asp Leu Val Ile Val Leu Lys Arg Gly Ala Ile Leu Glu Phe Asp Lys Pro Glu Lys Leu Leu Ser Arg Lys Asp Ser Val Phe Ala Ser Phe Val Arg Ala Asp Lys <210> 58 <211> 274 <212> PRT <213> Homo sapiens <400> 58 Met Pro Arg Asn Leu Leu Tyr Ser Leu Leu Ser Ser His Leu Ser Pro His Phe Ser Thr Ser Val Thr Ser Ala Lys Val Ala Val Asn Gly Val Gln Leu His Tyr Gln Gln Thr Gly Glu Gly Asp His Ala Val Leu Leu

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375

380

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GC773-2-seqlist 240 230 235 Gly Leu Ser Met Ala Ile Tyr Leu Lys Gln Val Thr Ala Thr Val Leu 245 250 255 Ile Asn Gly Thr Asn Phe Pro Phe Gly Ile Pro Gln Val Tyr His Gly 260 265 270 Gln Ile His Gln Pro Leu Pro His Ser Ala Gln Leu Ile Ser Thr Asn 275 280 Ala Leu Gly Leu Leu Glu Leu Tyr Arg Thr Phe Glu Thr Thr Gln Val 290 295 300 Gly Ala Ser Gln Tyr Leu Phe Pro Ile Glu Glu Ala Gln Gly Gln Phe 320 310 315 Leu Phe Ile Val Gly Glu Gly Asp Lys Thr Ile Asn Ser Lys Ala His 325 330 335 Ala Glu Gln Ala Ile Gly Gln Leu Lys Arg His Gly Lys Asn Asn Trp 345 Thr Leu Leu Ser Tyr Pro Gly Ala Gly His Leu Ile Glu Pro Pro Tyr 355 360 365 Ser Pro Leu Cys Cys Ala Ser Thr Thr His Asp Leu Arg Leu His Trp 375 380 Gly Gly Glu Val Ile Pro His Ala Ala Ala Gln Glu His Ala Trp Lys 390 395 Glu Ile Gln Arg Phe Leu Arg Lys His Leu Ile Pro Asp Val Thr Ser 410 405

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Gln Leu

<213> Homo sapiens

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180 185 _ 190 _ Ser Ile Gln His Leu Lys Asn Lys Leu Gly Lys Asp Tyr Ile Leu Glu 195 _ 200 _ 205 Leu Lys Val Lys Glu Thr Ser Gln Val Thr Leu Val His Thr Glu Ile 215 220 Leu Lys Leu Phe Pro Gln Ala Ala Gly Gln Glu Arg Tyr Ser Ser Leu 230 235 Leu Thr Tyr Lys Leu Pro Val Ala Asp Val Tyr Pro Leu Ser Gln Thr Page 96

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35 40 45 40 Leu Asn Lys Thr Lys Thr Ala Leu Gly Phe Leu Leu Trp Ile Val Cys 50 60 Trp Ala Asp Leu Phe Tyr Ser Phe Trp Glu Arg Ser Arg Gly Ile Phe 65 70 75 80 Leu Ala Pro Val Phe Leu Val Ser Pro Thr Leu Leu Gly Ile Thr Met 85 90 95 Leu Leu Ala Thr Phe Leu Ile Gln Leu Glu Arg Arg Lys Gly Val Gln 100 105 Ser Ser Gly Ile Met Leu Thr Phe Trp Leu Val Ala Leu Val Cys Ala 120 125 115 Leu Ala Ile Leu Arg Ser Lys Ile Met Thr Ala Leu Lys Glu Val Asp 130 135 140 Leu Phe Arg Asp Ile Thr Phe Tyr Val Tyr Phe Ser Leu Leu Leu Ile 155 150 160 Gln Leu Val Leu Ser Cys Phe Ser Asp Arg Ser Pro Leu Phe Ser Glu 170 165 Thr Ile His Asp Pro Asn Pro Cys Pro Glu Ser Ser Ala Ser Phe Leu 190 180 185 Ser Arg Ile Thr Phe Trp Trp Ile Thr Gly Leu Ile Val Arg Gly Tyr 200 205 195 Arg Gln Pro Leu Glu Gly Ser Asp Leu Trp Ser Leu Asn Lys Glu Asp 210 215 220 210 Thr Ser Glu Gln Val Val Pro Val Leu Val Lys Asn Trp Lys Lys Glu 230 235 Cys Ala Lys Thr Arg Asn Ser Ser Gly Ser Gly Glu Ser Cys Ser Ala 245 250 255 Asn Thr Glu Ala Leu Phe Pro Ala Pro Thr Cys His Lys Ser Phe Gln 270 265 260 Ala Leu Ser Leu Leu Leu Cys Arg Leu Leu Ile Lys Phe Val Asn Asp **280** Thr Lys Ala Pro Asp Trp Gln Gly Tyr Phe Tyr Thr Val Leu Leu Phe 290 295 300 Val Thr Ala Cys Leu Gln Thr Leu Val Leu His Gln Tyr Phe His Ile 310 315 320 Cys Phe Val Ser Gly Met Arg Ile Lys Thr Ala Val Ile Gly Ala Val 335 330 325 Tyr Arg Lys Ala Leu Val Ile Thr Asn Ser Ala Arg Lys Ser Ser Thr 345 350 340 Val Gly Glu Ile Val Asn Leu Met Ser Val Asp Ala Gln Arg Phe Met 360 365 Asp Leu Ala Thr Tyr Ile Asn Met Ile Trp Ser Ala Pro Leu Gln Val 375 380 Ile Leu Ala Leu Tyr Leu Leu Trp Leu Val Val Ala Pro Asp Val Leu 395 390 Thr Ala Val Ser Ser Lys Val Ala His Met Lys Ser Lys Asp Asn Arg 405 410 415 Ile Lys Leu Met Asn Glu Ile Leu Asn Gly Ile Lys Val Leu Lys Leu Page 97

GC773-2-seqlist Tyr Ala Trp Glu Leu Ala Phe Lys Asp Lys Val Leu Ala Ile Arg Gln Glu Glu Leu Lys Val Leu Lys Lys Ser Ala Tyr Leu Ser Ala Val Gly
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GC773-2-seqlist Ser Arg Gly Arg Lys Val Phe Glu Leu Val Gly Glu Pro Ser Ile Tyr 65 70 _____ 75 ____ 80 Cys Thr Ser Asn Asp Asp Gln Val Gly Ile Trp Ser Gly Pro Ala Pro 85 90 95 Gln Cys Ile Ile Pro Asn Lys Cys Thr Pro Pro Asn Val Glu Asn Gly 105 Ile Leu Val Ser Asp Asn Arg Ser Leu Phe Ser Leu Asn Glu Val Val 125 120 115 Glu Phe Arg Cys Gln Pro Gly Phe Val Met Lys Gly Pro Arg Arg Val 135 Lys Cys Gln Ala Leu Asn Lys Trp Glu Pro Glu Leu Pro Ser Cys Ser 145 150 155 160 160 Arg Val Cys Gln Pro Pro Pro Glu Ile Leu His Gly Glu His Thr Pro 170 Ser His Gln Asp Asn Phe Ser Pro Gly Gln Glu Val Phe Tyr Ser Cys 180 185 190 Glu Pro Gly Tyr Asp Leu Arg Gly Ala Ala Ser Leu His Cys Thr Pro 195 200 205 Gln Gly Asp Trp Ser Pro Glu Ala Pro Arg Cys Ala Val Lys Ser Cys 210 215 220 Asp Asp Phe Leu Gly Gln Leu Pro His Gly Arg Val Leu Phe Pro Leu 225 _____ 230 ____ 240 Asn Leu Gln Leu Gly Ala Lys Val Ser Phe Val Cys Asp Glu Gly Phe 245 250 255 Arg Leu Lys Gly Ser Ser Val Ser His Cys Val Leu Val Gly Met Arg 260 265 270 Ser Leu Trp Asn Asn Ser Val Pro Val Cys Glu His Ile Phe Cys Pro 280 285 275 Asn Pro Pro Ala Ile Leu Asn Gly Arg His Thr Gly Thr Pro Ser Gly 290 295 300 Asp Ile Pro Tyr Gly Lys Glu Ile Ser Tyr Thr Cys Asp Pro His Pro 305 310 315 320 Asp Arg Gly Met Thr Phe Asn Leu Ile Gly Glu Ser Thr Ile Arg Cys 325 330 335 Thr Ser Asp Pro His Gly Asn Gly Val Trp Ser Ser Pro Ala Pro Arg 345 350 340 Cys Glu Leu Ser Val Arg Ala Gly His Cys Lys Thr Pro Glu Gln Phe 355 360 365 Pro Phe Ala Ser Pro Thr Ile Pro Ile Asn Asp Phe Glu Phe Pro Val 370 380 375 Gly Thr Ser Leu Asn Tyr Glu Cys Arg Pro Gly Tyr Phe Gly Lys Met 385 390 395 400 Phe Ser Ile Ser Cys Leu Glu Asn Leu Val Trp Ser Ser Val Glu Asp 405 410 Asn Cys Arg Arg Lys Ser Cys Gly Pro Pro Pro Glu Pro Phe Asn Gly 42Ŏ 425 Met Val His Ile Asn Thr Asp Thr Gln Phe Gly Ser Thr Val Asn Tyr 445 440 Ser Cys Asn Glu Gly Phe Arg Leu Ile Gly Ser Pro Ser Thr Thr Cys 450 460 Leu Val Ser Gly Asn Asn Val Thr Trp Asp Lys Lys Ala Pro Ile Cys 480 470 Glu Ile Ile Ser Cys Glu Pro Pro Pro Thr Ile Ser Asn Gly Asp Phe 485 495 490 Tyr Ser Asn Asn Arg Thr Ser Phe His Asn Gly Thr Val Val Thr Tyr 500 _ 505 _ 510 Gln Cys His Thr Gly Pro Asp Gly Glu Gln Leu Phe Glu Leu Val Gly 515 520 525 Glu Arg Ser Ile Tyr Cys Thr Ser Lys Asp Asp Gln Val Gly Val Trp 530 535 540 Ser Ser Pro Pro Pro Arg Cys Ile Ser Thr Asn Lys Cys Thr Ala Pro 55Ō 555 Glu Val Glu Asn Ala Ile Arg Val Pro Gly Asn Arg Ser Phe Phe Thr

GC773-2-seqlist 570 Leu Thr Glu Ile Ile Arg Phe Arg Cys Gln Pro Gly Phe Val Met Val 580 585 590 Gly Ser His Thr Val Gln Cys Gln Thr Asn Gly Arg Trp Gly Pro Lys 595 600 605 Leu Pro His Cys Ser Arg Val Cys Gln Pro Pro His Ile Leu His Gly 615 Glu His Thr Leu Ser His Gln Asp Asn Phe Ser Pro Gly Gln Glu Val 630 635 Phe Tyr Ser Cys Glu Pro Ser Tyr Asp Leu Arg Gly Ala Ala Ser Leu 645 650 His Cys Thr Pro Gln Gly Asp Trp Ser Pro Glu Ala Pro Arg Cys Thr 67Ō 665 660 val Lys Ser Cys Asp Asp Phe Leu Gly Gln Leu Pro His Gly Arg Val 675 680 Leu Leu Pro Leu Asn Leu Gln Leu Gly Ala Lys Val Ser Phe Val Cys 690 700 695 Asp Glu Gly Phe Arg Leu Lys Gly Arg Ser Ala Ser His Cys Val Leu 710 715 705 Ala Gly Met Lys Ala Leu Trp Asn Ser Ser Val Pro Val Cys Glu Arg 725 730 735 <210> 65 <211> 738

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85 90 95 Pro Gly Ser Cys Arg Cys Gly Ala Phe Ala Gly Pro Gly Ala Pro Arg
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260 265 270 270 Arg Leu Thr Leu Val Lys Arg Pro Ala Glu Pro Gly Gly Pro Gln Glu _ 275 _ 280 _ _ 285 Pro Gly Leu Ala Ser Ser Pro Pro Gly Arg Ala Pro Leu Ser Ser Cys 290 295 300 Ser Glu Leu Gln Val Ser Gln Phe Ile Arg Lys His Val Ala Ser Cys 305 310 315 320 Leu Leu Val Ser Asp Thr Ser Thr Glu Leu Ser Tyr Ile Leu Pro Ser 325 330 Glu Ala Ala Lys Lys Gly Ala Phe Glu Arg Leu Phe Gln His Leu Glu 340 345 ___ 350 Arg Ser Leu Asp Ala Leu His Leu Ser Ser Phe Gly Leu Met Asp Thr 355 360 Thr Leu Glu Glu Val Phe Leu Lys Val Ser Glu Glu Asp Gln Ser Leu 375 380 Glu Asn Ser Glu Ala Asp Val Lys Glu Ser Arg Lys Asp Val Leu Pro 385 390 395 400 390 Gly Ala Glu Gly Pro Ala Ser Gly Glu Gly His Ala Gly Asn Leu Ala 405 410 415 Arg Cys Ser Glu Leu Thr Gln Ser Gln Ala Ser Leu Gln Ser Ala Ser 420 425 430 Ser Val Gly Ser Ala Arg Gly Asp Glu Gly Ala Gly Tyr Thr Asp Val 435 440 445 Tyr Gly Asp Tyr Arg Pro Leu Phe Asp Asn Pro Gln Asp Pro Asp Asn 455 460 Val Ser Leu Gln Glu Val Glu Ala Glu Ala Leu Ser Arg Val Gly Gln 470 475 Page 103

GC773-2-seqlist Gly Ser Arg Lys Leu Asp Gly Gly Trp Leu Lys Val Arg Gln Phe His Gly Leu Leu Val Lys Arg Phe His Cys Ala Arg Arg Asn Ser Lys Ala 500 510 Leu Phe Ser Gln Ile Leu Leu Pro Ala Phe Phe Val Cys Val Ala Met Thr Val Ala Leu Ser Val Pro Glu Ile Gly Asp Leu Pro Pro Leu Val Leu Ser Pro Ser Gln Tyr His Asn Tyr Thr Gln Pro Arg Gly Asn Phe 545 550 555 560 Ile Pro Tyr Ala Asn Glu Glu Arg Arg Glu Tyr Arg Arg His Pro Ala Gly Ala Ser Leu Val Gly Gly Ala Ser Glu Gly Ala Gly Thr Ala Leu val Gly Gln Ala Gly Glu Gly Ala Gly Leu Ala Arg Gly Gly Asp Trp Gln Pro His Leu Thr Leu Ile Trp Gly Arg Gly Gly Glu Asp Leu Gly Pro Glu Ser Ala Ala Pro Ala Pro Pro Cys Ala Gly Ile Thr Val Thr Asn His Pro Met Asn Lys Thr Ser Ala Ser Leu Ser Leu Asp Tyr Leu Leu Gln Gly Thr Asp Val Val Ile Ala Ile Phe Ile Ile Val Ala Met Ser Phe Val Pro Ala Ser Phe Val Val Phe Leu Val Ala Glu Lys Ser Thr Lys Ala Lys His Leu Gln Phe Val Ser Gly Cys Asn Pro Ile Ile Tyr Trp Leu Ala Asn Tyr Val Trp Asp Met Leu Asn Tyr Leu Val Pro 705 710 715 720 Ala Thr Cys Cys Val Ile Ile Leu Phe Val Phe Asp Leu Pro Ala Tyr Thr Ser Pro Thr Asn Phe Pro Ala Val Leu Ser Leu Phe Leu Leu Tyr Gly Trp Ser Ile Thr Pro Ile Met Tyr Pro Ala Ser Phe Trp Phe Glu Val Pro Ser Ser Ala Tyr Val Phe Leu Ile Val Ile Asn Leu Phe Ile Gly Ile Thr Ala Thr Val Ala Thr Phe Leu Leu Gln Leu Phe Glu His 785 790 795 800 Asp Lys Asp Leu Lys Val Val Asn Ser Tyr Leu Lys Ser Cys Phe Leu 805 810 815 Ile Phe Pro Asn Tyr Asn Leu Gly His Gly Leu Met Glu Met Ala Tyr Asn Glu Tyr Ile Asn Glu Tyr Tyr Ala Lys Ile Gly Gln Phe Asp Lys Met Lys Ser Pro Phe Glu Trp Asp Ile Val Thr Arg Gly Leu Val Ala 850 _ _ _ 855 _ _ 860 _ _ Met Ala Val Glu Gly Val Val Gly Phe Leu Leu Thr Ile Met Cys Gln Tyr Asn Phe Leu Arg Arg Pro Gln Arg Met Pro Val Ser Thr Lys Pro Val Glu Asp Asp Val Asp Val Ala Ser Glu Arg Gln Arg Val Leu Arg Gly Asp Ser Asp Asn Asp Met Cys Phe Gly Leu Leu Gly Val Asn Gly 915 920 925 Ala Gly Lys Thr Ser Thr Phe Lys Met Leu Thr Gly Asp Glu Ser Thr Thr Gly Gly Glu Ala Phe Val Asn Gly His Ser Val Leu Lys Glu Leu Leu Gln Val Gln Gln Ser Leu Gly Tyr Cys Pro Gln Cys Asp Ala Leu Phe Asp Glu Leu Thr Ala Arg Glu His Leu Gln Leu Tyr Thr Arg Leu Page 104

GC773-2-seqlist 985 980 Arg Gly Ile Ser Trp Lys Asp Glu Ala Arg Val Val Lys Trp Ala Leu 995 1000 1005 Glu Lys Leu Glu Leu Thr Lys Tyr Ala Asp Lys Pro Ala Gly Thr Tyr 1010 1015 1020 Ser Gly Gly Asn Lys Arg Lys Leu Ser Thr Ala Ile Ala Leu Ile Gly 1030 1035

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990

1040

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645

650

655

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120 Ala Lys Val Pro Val Asp Gly Asn Lys Glu Glu Pro Gln Ile Cys Leu 130 135 140 Gly Gly Thr Ile Gly Asp Ile Glu Gly Met Pro Phe Val Glu Ala Phe 145 150 155 160 Arg Gln Phe Gln Phe Lys Ala Lys Arg Glu Asn Phe Cys Asn Ile His 170 165 Val Ser Leu Val Pro Gln Leu Ser Ala Thr Gly Glu Gln Lys Thr Lys 185 190 180 Pro Thr Gln Asn Ser Val Arg Ala Leu Arg Gly Leu Gly Leu Ser Pro 195 200 205 _ Asp Leu Ile Val Cys Arg Ser Ser Thr Pro Ile Glu Met Ala Val Lys 215 220 Glu Lys Ile Ser Met Phe Cys His Val Asn Pro Glu Gln Val Ile Cys 230 235 Ile His Asp Val Ser Ser Thr Tyr Arg Val Pro Val Leu Leu Glu Glu 255 250 245 Gln Ser Ile Val Lys Tyr Phe Lys Glu Arg Leu His Leu Pro Ile Gly 260 265 Asp Ser Ala Ser Asn Leu Leu Phe Lys Trp Arg Asn Met Ala Asp Arg 275 280 285 275 Tyr Glu Arg Leu Gln Lys Ile Cys Ser Ile Ala Leu Val Gly Lys Tyr 295 300 Thr Lys Leu Arg Asp Cys Tyr Ala Ser Val Phe Lys Ala Leu Glu His 310 315 Ser Ala Leu Ala Ile Asn His Lys Leu Asn Leu Met Tyr Ile Asp Ser 330 325 Ile Asp Leu Glu Lys Ile Thr Glu Thr Glu Asp Pro Val Lys Phe His 345 350 Glu Ala Trp Gln Lys Leu Cys Lys Ala Asp Gly Ile Leu Val Pro Gly 360 Gly Phe Gly Ile Arg Gly Thr Leu Gly Lys Leu Gln Ala Ile Ser Trp 375 Ala Arg Thr Lys Lys Ile Pro Phe Leu Gly Val Cys Leu Gly Met Gln 395 390 400 Leu Ala Val Ile Glu Phe Ala Arg Asn Cys Leu Asn Leu Lys Asp Ala 405 410 415 Asp Ser Thr Glu Phe Arg Pro Asn Ala Pro Val Pro Leu Val Ile Asp 420 430 430 Met Pro Glu His Asn Pro Gly Asn Leu Gly Gly Thr Met Arg Leu Gly 435 440 445 Ile Arg Arg Thr Val Phe Lys Thr Glu Asn Ser Ile Leu Arg Lys Leu 450 455 460 Tyr Gly Asp Val Pro Phe Ile Glu Glu Arg His Arg His Arg Phe Glu 470 475 Val Asn Pro Asn Leu Ile Lys Gln Phe Glu Gln Asn Asp Leu Ser Phe 485 490 495 Val Gly Gln Asp Val Asp Gly Asp Arg Met Glu Ile Ile Glu Leu Ala 500 505 510 Asn His Pro Tyr Phe Val Gly Val Gln Phe His Pro Glu Phe Ser Ser 520 Arg Pro Met Lys Pro Ser Pro Pro Tyr Leu Gly Leu Leu Ala Ala 530 535 540 Thr Gly Asn Leu Asn Ala Tyr Leu Gln Gln Gly Cys Lys Leu Ser Ser 545 550 555 560 Ser Asp Arg Tyr Ser Asp Ala Ser Asp Asp Ser Phe Ser Glu Pro Arg 565 570 575 Ile Ala Glu Leu Glu Ile Ser 580

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35 40 45 40 Trp Val Ala Leu Pro Cys Tyr Leu Leu Tyr Leu Arg His His Cys Arg 50 55 60 Gly Tyr Ile Ile Leu Ser His Leu Ser Lys Leu Lys Met Val Leu Gly 70 Val Leu Leu Trp Cys Val Ser Trp Ala Asp Leu Phe Tyr Ser Phe His 90 Gly Leu Val His Gly Arg Ala Pro Ala Pro Val Phe Phe Val Thr Pro 110 100 105 Leu Val Val Gly Val Thr Met Leu Leu Ala Thr Leu Leu Ile Gln Tyr 115 120 125 120 115 Glu Arg Leu Gln Gly Val Gln Ser Ser Gly Val Leu Ile Ile Phe Trp 135 140 Phe Leu Cys Val Val Cys Ala Ile Val Pro Phe Arg Ser Lys Ile Leu 145 150 155 160 Leu Ala Lys Ala Glu Gly Glu Ile Ser Asp Pro Phe Arg Phe Thr 170 165 Phe Tyr Ile His Phe Ala Leu Val Leu Ser Ala Leu Ile Leu Ala Cys 190 180 185 Phe Arg Glu Lys Pro Pro Phe Phe Ser Ala Lys Asn Val Asp Pro Asn 205 200 Pro Tyr Pro Glu Thr Ser Ala Gly Phe Leu Ser Arg Leu Phe Phe Trp 210 220 210 215 Trp Phe Thr Lys Met Ala Ile Tyr Gly Tyr Arg His Pro Leu Glu Glu 235 230 Lys Asp Leu Trp Ser Leu Lys Glu Glu Asp Arg Ser Gln Met Val Val 245 250 255 245 Gln Gln Leu Leu Glu Ala Trp Arg Lys Gln Glu Lys Gln Thr Ala Arg 260 265 270 260 His Lys Ala Ser Ala Ala Pro Gly Lys Asn Ala Ser Gly Glu Asp Glu 275 280 285 Val Leu Leu Gly Ala Arg Pro Arg Pro Arg Lys Pro Ser Phe Leu Lys 290 295 300 Ala Leu Leu Ala Thr Phe Gly Ser Ser Phe Leu Ile Ser Ala Cys Phe 310 315 Lys Leu Ile Gln Asp Leu Leu Ser Phe Ile Asn Pro Gln Leu Leu Ser 325 330 Ile Leu Ile Arg Phe Ile Ser Asn Pro Met Ala Pro Ser Trp Trp Gly **340** 345 Phe Leu Val Ala Gly Leu Met Phe Leu Cys Ser Met Met Gln Ser Leu 360 Ile Leu Gln His Tyr Tyr His Tyr Ile Phe Val Thr Gly Val Lys Phe 375 380 370 Arg Thr Gly Ile Met Gly Val Ile Tyr Arg Lys Ala Leu Val Ile Thr 385 390 395 400 Asn Ser Val Lys Arg Ala Ser Thr Val Gly Glu Ile Val Asn Leu Met
405 410 415 Ser Val Asp Ala Gln Arg Phe Met Asp Leu Ala Pro Phe Leu Asn Leu 420 425 430 430 420 Leu Trp Ser Ala Pro Leu Gln Ile Ile Leu Ala Ile Tyr Phe Leu Trp 435 440 445 Gln Asn Leu Gly Pro Ser Val Leu Ala Gly Val Ala Phe Met Val Leu 460 455 Leu Île Pro Leu Asn Gly Ala Val Ala Val Lys Met Arg Ala Phe Gln 465 470 475 480 470 Page 110

GC773-2-seqlist Val Lys Gln Met Lys Leu Lys Asp Ser Arg Ile Lys Leu Met Ser Glu 49Ō Ile Leu Asn Gly Ile Lys Val Leu Lys Leu Tyr Ala Trp Glu Pro Ser Phe Leu Lys Gln Val Glu Gly Ile Arg Gln Gly Glu Leu Gln Leu Leu Arg Thr Ala Ala Tyr Leu His Thr Thr Thr Phe Thr Trp Met Cys Ser Pro Phe Leu Val Thr Leu Ile Thr Leu Trp Val Tyr Val Tyr Asp Pro Asn Asn Val Leu Asp Ala Glu Lys Ala Phe Val Ser Val Ser Leu Phe Asn Ile Leu Arg Leu Pro Leu Asn Met Leu Pro Gln Leu Ile Ser Asn Leu Thr Gln Ala Ser Val Ser Leu Lys Arg Ile Gln Gln Phe Leu Ser Gln Glu Glu Leu Asp Pro Gln Ser Val Glu Arg Lys Thr Ile Ser Pro Gly Tyr Ala Ile Thr Ile His Ser Gly Thr Phe Thr Trp Ala Gln Asp Leu Pro Pro Thr Leu His Ser Leu Asp Ile Gln Val Pro Lys Gly Ala Leu Val Ala Val Val Gly Pro Val Gly Cys Gly Lys Ser Ser Leu Val Ser Ala Leu Leu Gly Glu Met Glu Lys Leu Glu Gly Lys Val His Met Lys Gly Ser Val Ala Tyr Val Pro Gln Gln Ala Trp Ile Gln Asn Cys Thr Leu Gln Glu Asn Val Leu Phe Gly Lys Ala Leu Asn Pro 705 710 715 720 Lys Arg Tyr Gln Gln Thr Leu Glu Ala Cys Ala Leu Leu Ala Asp Leu Glu Met Leu Pro Gly Gly Asp Gln Thr Glu Ile Gly Glu Lys Gly Ile 740 745 750 Asn Leu Ser Gly Gly Gln Arg Gln Arg Val Ser Leu Ala Arg Ala Val Tyr Ser Asp Ala Asp Ile Phe Leu Leu Asp Asp Pro Leu Ser Ala Val Asp Ser His Val Ala Lys His Ile Phe Asp His Val Ile Gly Pro Glu 785 790 795 800 Gly Val Leu Ala Gly Lys Thr Arg Val Leu Val Thr His Gly Ile Ser Phe Leu Pro Gln Thr Asp Phe Ile Ile Val Leu Ala Asp Gly Gln Val Ser Glu Met Gly Pro Tyr Pro Ala Leu Leu Gln Arg Asn Gly Ser Phe Ala Asn Phe Leu Cys Asn Tyr Ala Pro Asp Glu Asp Gln Gly His Leu Glu Asp Ser Trp Thr Ala Leu Glu Gly Ala Glu Asp Lys Glu Ala Leu Leu Ile Glu Asp Thr Leu Ser Asn His Thr Asp Leu Thr Asp Asn Asp Pro Val Thr Tyr Val Val Gln Lys Gln Phe Met Arg Gln Leu Ser Ala Leu Ser Ser Asp Gly Glu Gly Gln Gly Arg Pro Val Pro Arg Arg His Leu Gly Pro Ser Glu Lys Val Gln Val Thr Glu Ala Lys Ala Asp Gly 930 940 Ala Leu Thr Gln Glu Glu Lys Ala Ala Ile Gly Thr Val Glu Leu Ser Val Phe Trp Asp Tyr Ala Lys Ala Val Gly Leu Cys Thr Thr Leu Ala Ile Cys Leu Leu Tyr Val Gly Gln Ser Ala Ala Ala Ile Gly Ala Asn Page 111

985 990 980 Val Trp Leu Ser Ala Trp Thr Asn Asp Ala Met Ala Asp Ser Arg Gln 995 1000 1005 Asn Asn Thr Ser Leu Arg Leu Gly Val Tyr Ala Ala Leu Gly Ile Leu 1010 1015 1020 Gln Gly Phe Leu Val Met Leu Ala Ala Met Ala Met Ala Ala Gly Gly 1030 1035 1040 Ile Gln Ala Ala Arg Val Leu His Gln Ala Leu Leu His Asn Lys Ile 1045 1050 1055 Arg Ser Pro Gln Ser Phe Phe Asp Thr Thr Pro Ser Gly Arg Ile Leu 1060 1065 1070 Asn Cys Phe Ser Lys Asp Ile Tyr Val Val Asp Glu Val Leu Ala Pro 1075 1080 1085 Val Ile Leu Met Leu Leu Asn Ser Phe Phe Asn Ala Ile Ser Thr Leu 1095 1100 Val Val Ile Met Ala Ser Thr Pro Leu Phe Thr Val Val Ile Leu Pro 1105 1110 1115 1120 Leu Ala Val Leu Tyr Thr Leu Val Gln Arg Phe Tyr Ala Ala Thr Ser 1125 1130 1135 Arg Gln Leu Lys Arg Leu Glu Ser Val Ser Arg Ser Pro Ile Tyr Ser 1140 1150 His Phe Ser Glu Thr Val Thr Gly Ala Ser Val Ile Arg Ala Tyr Asn 1155 1160 1165 Arg Ser Arg Asp Phe Glu Ile Ile Ser Asp Thr Lys Val Asp Ala Asn 1175 1180 Gln Arg Ser Cys Tyr Pro Tyr Ile Ile Ser Asn Arg Ser Glu Ala Ala 1185 1190 1195 1200 Ser Leu Ala Pro Cys Ser Ser Arg Asn Ser Gln Gln Ala Leu Trp Cys 1205 1210 1215 Ser Gly Ser Leu Ser Leu Leu Ser Pro Lys Gln Lys Thr Gly Pro Ala 1225 1220 1230 Leu Pro Leu Pro His Phe Leu Leu Ile 1235 1240

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GC773-2-seqlist 185 190 180 Gly Ala Val Ile Leu Val His Ala Glu Asn Gly Asp Leu Ile Ala Gln 200 205 195 Glu Gln Lys Arg Ile Leu Glu Met Gly Ile Thr Gly Pro Glu Gly His 220 215 Ala Leu Ser Arg Pro Glu Glu Leu Glu Ala Glu Ala Val Phe Arg Ala 230 235 Ile Thr Ile Ala Gly Arg Ile Asn Cys Pro Val Tyr Ile Thr Lys Val 245 250 255 Met Ser Lys Ser Ala Ala Asp Ile Ile Ala Leu Ala Arg Lys Lys Gly 260 270 270 Pro Leu Val Phe Gly Glu Pro Ile Ala Ala Ser Leu Gly Thr Asp Gly 285 280 275 Thr His Tyr Trp Ser Lys Asn Trp Ala Lys Ala Ala Ala Phe Val Thr 295 300 Ser Pro Pro Leu Ser Pro Asp Pro Thr Thr Pro Asp Tyr Leu Thr Ser 310 315 320 Leu Leu Ala Cys Gly Asp Leu Gln Val Thr Gly Ser Gly His Cys Pro 325 330 335 Tyr Ser Thr Ala Gln Lys Ala Val Gly Lys Asp Asn Phe Thr Leu Ile 340 345 350 Pro Glu Gly Val Asn Gly Ile Glu Glu Arg Met Thr Val Val Trp Asp 355 360 365 Lys Ala Val Ala Thr Gly Lys Met Asp Glu Asn Gln Phe Val Ala Val 370 375 380 Thr Ser Thr Asn Ala Ala Lys Ile Phe Asn Leu Tyr Pro Arg Lys Gly 390 395 400 Arg Ile Ala Val Gly Ser Asp Ala Asp Val Val Ile Trp Asp Pro Asp 405 410 415 Lys Leu Lys Thr Ile Thr Ala Lys Ser His Lys Ser Ala Val Glu Tyr 425 430 Asn Ile Phe Glu Gly Met Glu Cys His Gly Ser Pro Leu Val Val Ile 435 440 445 Ser Gln Gly Lys Ile Val Phe Glu Asp Gly Asn Ile Asn Val Asn Lys 450 460 455 Gly Met Gly Arg Phe Ile Pro Arg Lys Ala Phe Pro Glu His Leu Tyr 465 470 475 Gln Arg Val Lys Ile Arg Asn Lys Val Phe Gly Leu Gln Gly Val Ser 485 490 495 Arg Gly Met Tyr Asp Gly Pro Val Tyr Glu Val Pro Ala Thr Pro Lys 500 510 Tyr Ala Thr Pro Ala Pro Ser Ala Lys Ser Ser Pro Ser Lys His Gln
515 520 525 515 Pro Pro Ile Arg Asn Leu His Gln Ser Asn Phe Ser Leu Ser Gly 530 540 535 Ala Gln Ile Asp Asp Asn Asn Pro Arg Arg Thr Gly His Arg Ile Val 550 555 560 Ala Pro Pro Gly Gly Arg Ser Asn Ile Thr Ser Leu Gly
565 570 <210> 71 <211> 351 <212> PRT <213> Homo sapiens <400> 71

His Gly Leu Met Glu Gln His Val Trp Asp Val Ala Ile Ser Leu Thr 65 70 75 80 Thr Val Val Ala Gly Arg Leu Leu Glu Pro Leu Trp Gly Ala Leu 90 85 Glu Leu Leu Ile Phe Phe Ser Val Val Asn Val Ser Val Gly Leu Leu 105 110 100 Gly Ala Phe Ala Tyr Leu Leu Thr Tyr Met Ala Ser Phe Asn Leu Val 115 120 Tyr Leu Phe Thr Val Arg Ile His Gly Ala Leu Gly Phe Leu Gly Gly 135 140 130 Val Leu Val Ala Leu Lys Gln Thr Met Gly Asp Cys Val Val Leu Arg **160** Val Pro Gln Val Arg Val Ser Val Met Pro Met Leu Leu Leu A<u>la</u> Leu 165 Leu Leu Leu Arg Leu Ala Thr Leu Leu Gin Ser Pro Ala Leu Ala 190 180 185 Ser Tyr Gly Phe Gly Leu Leu Ser Ser Trp Val Tyr Leu Arg Phe Tyr
195 200 205 Gln Arg His Ser Arg Gly Arg Gly Asp Met Ala Asp His Phe Ala Phe 210 220 _____ Ala Thr Phe Phe Pro Glu Ile Leu Gln Pro Val Val Gly Leu Leu Ala 230 235 Asn Leu Val His Ser Leu Leu Val Lys Val Lys Ile Cys Gln Lys Thr 250 245 Val Lys Arg Tyr Asp Val Gly Ala Pro Ser Ser Ile Thr Ile Ser Leu 260 265 Pro Gly Thr Asp Pro Gln Asp Ala Glu Arg Arg Arg Gln Leu Ala Leu 275 280 Lys Ala Leu Asn Glu Arg Leu Lys Arg Val Glu Asp Gln Ser Ile Trp 300 290 295 Pro Ser Met Asp Asp Glu Glu Glu Ser Gly Ala Lys Val Asp Ser 310 Pro Leu Pro Ser Asp Lys Ala Pro Thr Pro Pro Gly Lys Gly Ala Ala 335 330 325 Pro Glu Ser Ser Leu Ile Thr Phe Glu Ala Ala Pro Pro Thr Leu

<210> 72 <211> 745 <212> PRT <213> Homo sapiens

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Gly Lys Ile Phe Gln Ala Ala Lys Asp Ala Gly Ile Ala Leu Leu Ser

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Ile Thr His Arg Pro Ser Leu Trp Lys Tyr His Thr His Leu Leu Gln 660
Phe Asp Gly Glu Gly Gly Trp Lys Phe Glu Lys Leu Asp Ser Ala Ala 675
Arg Leu Ser Leu Thr Glu Glu Lys Gln Arg Leu Glu Gln Gln Leu Ala 690
Gly Ile Pro Lys Met Gln Arg Arg Leu Gln Glu Leu Cys Gln Ile Leu 705
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<210> 73 <211> 334 <212> PRT <213> Homo sapiens

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<211> 559 <212> PRT <213> Homo sapiens

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50 60 Met Pro Val Leu Gly Met Thr Pro Ala Asp Asp Phe Cys Gln Gly Thr Lys Ala Ala Leu Ala Gly Gly Thr Thr Met Ile Leu Asp His Val Phe Pro Asp Thr Gly Val Ser Leu Leu Ala Ala Tyr Glu Gln Trp Arg Glu
100 105 110 Arg Ala Asp Ser Ala Ala Cys Cys Asp Tyr Ser Leu His Val Asp Ile
115 120 125 Thr Arg Trp His Glu Ser Ile Lys Glu Glu Leu Glu Ala Leu Val Lys
130 140 Glu Lys Gly Val Asn Ser Phe Leu Val Phe Met Ala Tyr Lys Asp Arg 150 Cys Gln Cys Ser Asp Ser Gln Met Tyr Glu Ile Phe Ser Ile Ile Arg 170 165 Asp Leu Gly Ala Leu Ala Gln Val His Ala Glu Asn Gly Asp Ile Val 190 185 180 Glu Glu Glu Gln Lys Arg Leu Leu Glu Leu Gly Ile Thr Gly Pro Glu 200 Gly His Val Leu Ser His Pro Glu Glu Val Glu Ala Glu Ala Val Tyr 210 215 220 Arg Ala Val Thr Ile Ala Lys Gln Ala Asn Cys Pro Leu Tyr Val Thr 225 230 235 240 Lys Val Met Ser Lys Gly Ala Ala Asp Ala Ile Ala Gln Ala Lys Arg
245 250 255 Arg Gly Val Val Val Phe Gly Glu Pro Ile Thr Ala Ser Leu Gly Thr
260 265 _____ 270 ____ Asp Gly Ser His Tyr Trp Ser Lys Asn Trp Ala Lys Ala Ala Ala Phe 275 280 285 Val Thr Ser Pro Pro Val Asn Pro Asp Pro Thr Thr Ala Asp His Leu 290 295 300 290 Thr Cys Leu Leu Ser Ser Gly Asp Leu Gln Val Thr Gly Ser Ala His 310 315 Cys Thr Phe Thr Thr Ala Gln Lys Ala Val Gly Lys Asp Asn Phe Ala 330 325 Leu Ile Pro Glu Gly Thr Asn Gly Ile Glu Glu Arg Met Ser Met Val Trp Glu Lys Cys Val Ala Ser Gly Lys Met Asp Glu Asn Glu Phe Val Ala Val Thr Ser Thr Asn Ala Ala Lys Ile Phe Asn Phe Tyr Pro Arg 375 380 Lys Gly Arg Val Ala Val Gly Ser Asp Ala Asp Leu Val Ile Trp Asn 385 390 395 400 390 Pro Lys Ala Thr Lys Ile Ile Ser Ala Lys Thr His Asn Leu Asn Val Glu Tyr Asn Ile Phe Glu Gly Val Glu Cys Arg Gly Ala Pro Ala Val 420 425 430 Val Ile Ser Gln Gly Arg Val Ala Leu Glu Asp Gly Lys Met Phe Val 445 440 Thr Pro Gly Ala Gly Arg Phe Val Pro Arg Lys Thr Phe Pro Asp Phe 455 460 Page 117

GC773-2-seqlist Val Tyr Lys Arg Ile Lys Ala Arg Asn Arg Leu Ala Glu Ile His Gly 465 470 475 480 480 Val Pro Arg Gly Leu Tyr Asp Gly Pro Val His Glu Val Met Val Pro
490
495 485 490 Ala Lys Pro Gly Ser Gly Ala Pro Ala Arg Ala Ser Cys Pro Gly Lys 500 505 510 Ile Ser Val Pro Pro Val Arg Asn Leu His Gln Ser Gly Phe Ser Leu 520 Ser Gly Ser Gln Ala Asp Asp His Ile Ala Arg Arg Thr Ala Gln Lys **540** 535 Ile Met Ala Pro Pro Gly Gly Arg Ser Asn Ile Thr Ser Leu Ser 550 <210> 75 <211> 743 <212> PRT <213> Homo sapiens <400> 75 Met Ala Arg Arg Ser Val Leu Tyr Phe Ile Leu Leu Asn Ala Leu Ile 1 5 10 15 Asn Lys Gly Gln Ala Cys Phe Cys Asp His Tyr Ala Trp Thr Gln Trp
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GC773-2-seqlist Gln Ser Gly Thr Tyr Gly Glu Asn Cys Glu Lys Gln Ser Pro Asp Tyr 355 _ _ 360 365 Lys Ser Asn Ala Val Asp Gly Gln Trp Gly Cys Trp Ser Ser Trp Ser 370 380 Thr Cys Asp Ala Thr Tyr Lys Arg Ser Arg Thr Arg Glu Cys Asn Asn 385 390 395 400 Pro Ala Pro Gln Arg Gly Gly Lys Arg Cys Glu Gly Glu Lys Arg Gln 410 405 Glu Glu Asp Cys Thr Phe Ser Ile Met Glu Asn Asn Gly Gln Pro Cys 420 425 430 Ile Asn Asp Asp Glu Glu Met Lys Glu Val Asp Leu Pro Glu Ile Glu 440 Ala Asp Ser Gly Cys Pro Gln Pro Val Pro Pro Glu Asn Gly Phe Ile 455 Arg Asn Glu Lys Gln Leu Tyr Leu Val Gly Glu Asp Val Glu Ile Ser 475 470 Cys Leu Thr Gly Phe Glu Thr Val Gly Tyr Gln Tyr Phe Arg Cys Leu 485 490 495 Pro Asp Gly Thr Trp Arg Gln Gly Asp Val Glu Cys Gln Arg Thr Glu 500 505 510 Cys Ile Lys Pro Val Val Gln Glu Val Leu Thr Ile Thr Pro Phe Gln 515 520 525 Arg Leu Tyr Arg Ile Gly Glu Ser Ile Glu Leu Thr Cys Pro Lys Gly 530 540 Phe Val Val Ala Gly Pro Ser Arg Tyr Thr Cys Gln Gly Asn Ser Trp 545 550 555 560 Thr Pro Pro Ile Ser Asn Ser Leu Thr Cys Glu Lys Asp Thr Leu Thr 565 570 575 565 Lys Leu Lys Gly His Cys Gln Leu Gly Gln Lys Gln Ser Gly Ser Glu 580 _ _ 585 _ 590 _ Cys Ile Cys Met Ser Pro Glu Glu Asp Cys Ser His His Ser Glu Asp 595 600 605 Leu Cys Val Phe Asp Thr Asp Ser Asn Asp Tyr Phe Thr Ser Pro Ala 610 620 Cys Lys Phe Leu Ala Glu Lys Cys Leu Asn Asn Gln Gln Leu His Phe 625 630 635 640 Leu His Ile Gly Ser Cys Gln Asp Gly Arg Gln Leu Glu Trp Gly Leu 645 650 655 Glu Arg Thr Arg Leu Ser Ser Asn Ser Thr Lys Lys Glu Ser Cys Gly 660 670 66Ŏ 665 Tyr Asp Thr Cys Tyr Asp Trp Glu Lys Cys Ser Ala Ser Thr Ser Lys 680 685 Cys Val Cys Leu Leu Pro Pro Gin Cys Phe Lys Gly Gly Asn Gln Leu 690 695 Tyr Cys Val Lys Met Gly Ser Ser Thr Ser Glu Lys Thr Leu Asn Ile 710 715 Cys Glu Val Gly Thr Ile Arg Cys Ala Asn Arg Lys Met Glu Ile Leu 725 730 735 His Pro Gly Lys Cys Leu Ala 740

<210> 76 <211> 321 <212> PRT

<213> Homo sapiens

GC773-2-seqlist Thr Val Thr Asp Pro His Leu His Thr Pro Met Tyr Tyr Phe Leu Gly 50 60 Asn Leu Ala Phe Ile Asp Ile Cys Tyr Thr Thr Ser Asn Val Pro Gln 65 70 75 80 Met Met Val His Leu Leu Ser Lys Lys Ser Ile Ser Tyr Val Gly 90 Cys Val Val Gln Leu Phe Ala Phe Val Phe Phe Val Gly Ser Glu Cys 110 100 105 Leu Leu Ala Ala Met Ala Tyr Asp Arg Tyr Ile Ala Ile Cys Asn 120 115 125 Pro Leu Arg Tyr Ser Val Ile Leu Ser Lys Val Leu Cys Asn Gln Leu 135 140 130 Ala Ala Ser Cys Trp Ala Ala Gly Phe Leu Asn Ser Val Val His Thr 150 155 Val Leu Thr Phe Cys Leu Pro Phe Cys Gly Asn Asn Gln Ile Asn Tyr 165 170 _ 175 _ Phe Phe Cys Asp Ile Pro Pro Leu Leu Ile Leu Ser Cys Gly Asn Thr Ser Val Asn Glu Leu Ala Leu Leu Ser Thr Gly Val Phe Ile Gly Trp Thr Pro Phe Leu Cys Ile Val Leu Ser Tyr Ile Cys Ile Ile Ser Thr 210 220 Ile Leu Arg Ile Gln Ser Ser Glu Gly Arg Arg Lys Ala Phe Ser Thr 225 230 235 240 Cys Ala Ser His Leu Ala Ile Val Phe Leu Phe Tyr Gly Ser Ala Ile 245 250 255 Phe Thr Tyr Val Arg Pro Ile Ser Thr Tyr Ser Leu Lys Lys Asp Arg 260 265 270 Leu Val Ser Val Leu Tyr Ser Val Val Thr Pro Met Leu Asn Pro Ile 275 280 285 Ile Tyr Thr Leu Arg Asn Lys Asp Ile Lys Glu Ala Val Lys Thr Ile 290 295 300 Gly Ser Lys Trp Gln Pro Pro Ile Ser Ser Leu Asp Ser Lys Leu Thr 315 310 320 305 Tyr

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GC773-2-seqlist Gly Lys Asn Phe Ala Leu Arg Val Leu Leu Val Gln Val Asp Val Lys 170 175 Asp Pro Gln Gln Ala Leu Lys Glu Leu Ala Lys Met Cys Ile Leu Ala 185 190 180 Asp Cys Thr Leu Ile Leu Ala Trp Ser Pro Glu Glu Ala Gly Arg Tyr 195 200 205 Leu Glu Thr Tyr Lys Ala Tyr Glu Gln Lys Pro Ala Asp Leu Leu Met 215 220 Glu Lys Leu Glu Gln Asp Phe Val Ser Arg Val Thr Glu Cys Leu Thr 235 225 230 Thr Val Lys Ser Val Asn Lys Thr Asp Ser Gln Thr Leu Leu Thr Thr 255 245 250 Phe Gly Ser Leu Glu Gln Leu Ile Ala Ala Ser Arg Glu Asp Leu Ala 265 270 260 Leu Cys Pro Gly Leu Gly Pro Gln Lys Ala Arg Arg Leu Phe Asp Val 280 285 275 Leu His Glu Pro Phe Leu Lys Val Pro 290

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<213> Homo sapiens

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GC773-2-seqlist His Ala Ala Ala Tyr Val Thr Val Pro Pro Leu Arg Leu Asp Thr Asn 310 315 Thr Ser Thr Tyr Leu Met Ser Leu Leu Ala Asn Asp Thr Leu Asn Ile 330 325 Val Ala Ser Asp His Arg Pro Phe Thr Thr Lys Gln Lys Ala Met Gly 340 345 Lys Glu Asp Phe Thr Lys Ile Pro His Gly Val Ser Gly Val Gln Asp 365 360 Met Ser val Ile Trp Glu Arg Gly Val Val Gly Gly Lys Met Asp 375 Glu Asn Arg Phe Val Ala Val Thr Ser Ser Asn Ala Ala Lys Leu Leu 395 400 390 Asn Leu Tyr Pro Arg Lys Gly Arg Ile Ile Pro Gly Ala Asp Ala Asp 405 410 val val val Trp Asp Pro Glu Ala Thr Lys Thr Ile Ser Ala Ser Thr 430 420 425 Gln Val Gln Gly Gly Asp Phe Asn Leu Tyr Glu Asn Met Arg Cys His 440 445 435 Gly Val Pro Leu Val Thr Ile Ser Arg Gly Arg Val Val Tyr Glu Asn 455 460 450 Gly Val Phe Met Cys Ala Glu Gly Thr Gly Lys Phe Cys Pro Leu Arg 465 470 475 480 Ser Phe Pro Asp Thr Val Tyr Lys Lys Leu Val Gln Arg Glu Lys Thr 495 485 490 Leu Lys Val Arg Gly Val Asp Arg Thr Pro Tyr Leu Gly Asp Val Ala 50Õ 505 510 val val val His Pro Gly Lys Lys Glu Met Gly Thr Pro Leu Ala Asp 520 525 515 Thr Pro Thr Arg Pro Val Thr Arg His Gly Gly Met Arg Asp Leu His 540 530 535 Glu Ser Ser Phe Ser Leu Ser Gly Ser Gln Ile Asp Asp His Val Pro 555 550 Lys Arg Ala Ser Ala Arg Ile Leu Ala Pro Pro Gly Gly Arg Ser Ser 570 565 Gly Ile Trp <210> 79

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100 _ 105 _ 110 Ala Ile Arg Glu Tyr Gln Thr Gln Leu Ile Gln Arg Val Lys Asp Asp Ile Glu Ser Leu His Asp Lys Phe Lys Val Gln Tyr Pro Gln Ser Gln 135 140 Ala Cys Lys Met Ser His Val Arg Asp Leu Pro Pro Val Ser Gly Ser 155 160 150 Page 122

GC773-2-seqlist Ile Ile Trp Ala Lys Gln Ile Asp Arg Gln Leu Thr Ala Tyr Met Lys 165 170 Arg Val Glu Asp Val Leu Gly Lys Gly Trp Glu Asn His Val Glu Gly
180 185 190 Gln Lys Leu Lys Gln Asp Gly Asp Ser Phe Arg Met Lys Leu Asn Thr 195 200 205 Gln Glu Ile Phe Asp Asp Trp Ala Arg Lys Val Gln Gln Arg Asn Leu 215 220 Gly Val Ser Gly Arg Ile Phe Thr Ile Glu Ser Thr Arg Val Arg Gly 230 235 240 Arg Thr Gly Asn Val Leu Lys Leu Lys Val Asn Phe Leu Pro Glu Ile 250 255 245 Ile Thr Leu Ser Lys Glu Val Arg Asn Leu Lys Trp Leu Gly Phe Arg 265 270 260 Val Pro Leu Ala Ile Val Asn Lys Ala His Gln Ala Asn Gln Leu Tyr 275 280 Pro Phe Ala Ile Ser Leu Ile Glu Ser Val Arg Thr Tyr Glu Arg Thr 290 295 · 300 Cys Glu Lys Val Glu Glu Arg Asn Thr Ile Ser Leu Leu Val Ala Gly 310 315 Leu Lys Lys Glu Val Gln Ala Leu Ile Ala Glu Gly Ile Ala Leu Val 325 330 335 Trp Glu Ser Tyr Lys Leu Asp Pro Tyr Val Gln Arg Leu Ala Glu Thr 340 345 350 Val Phe Asn Phe Gln Glu Lys Val Cys Ser His Val 360 <210> 80 <211> 1335 <212> PRT <213> Homo sapiens <400> 80 Met Ser Asp Ser Val Ile Leu Arg Ser Ile Lys Lys Phe Gly Glu Glu 10

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35 40 45 Val Gly Phe Phe Gln Leu Phe Arg Phe Ser Ser Thr Asp Ile Trp 50 60 Leu Met Phe Val Gly Ser Leu Cys Ala Phe Leu His Gly Ile Ala Gln 65 70 75 80 Pro Gly Val Leu Leu Ile Phe Gly Thr Met Thr Asp Val Phe Ile Asp 90 85 Tyr Asp Val Glu Leu Gln Glu Leu Gln Ile Pro Gly Lys Ala Cys Val 105 100 110 Asn Asn Thr Ile Val Trp Thr Asn Ser Ser Leu Asn Gln Asn Met Thr 125 115 120 Asn Gly Thr Arg Cys Gly Leu Leu Asn Ile Glu Ser Glu Met Ile Lys 130 135 140 Phe Ala Ser Tyr Tyr Ala Gly Ile Ala Val Ala Val Leu Ile Thr Gly
145 150 155 160 Tyr Ile Gln Ile Cys Phe Trp Val Ile Ala Ala Arg Gln Ile Gln 165 170 175 Lys Met Arg Lys Phe Tyr Phe Arg Arg Ile Met Arg Met Glu Ile Gly
180 _ _ 185 190 Trp Phe Asp Cys Asn Ser Val Gly Glu Leu Asn Thr Arg Phe Ser Asp 200 205 Asp Ile Asn Lys Ile Asn Asp Ala Ile Ala Asp Gln Met Ala Leu Phe 210 215 220 Ile Gln Arg Met Thr Ser Thr Ile Cys Gly Phe Leu Leu Gly Phe Phe 230 235 240

GC773-2-seqlist Arg Gly Trp Lys Leu Thr Leu Val Ile Ile Ser Val Ser Pro Leu Ile 245 250 255 Gly Ile Gly Ala Ala Thr Ile Gly Leu Ser Val Ser Lys Phe Thr Asp Tyr Glu Leu Lys Ala Tyr Ala Lys Ala Gly Val Val Ala Asp Glu Val Ile Ser Ser Met Arg Thr Val Ala Ala Phe Gly Gly Glu Lys Arg Glu Val Glu Arg Tyr Glu Lys Asn Leu Val Phe Ala Gln Arg Trp Gly Ile Arg Lys Gly Ile Val Met Gly Phe Phe Thr Gly Phe Val Trp Cys Leu Ile Phe Leu Cys Tyr Ala Leu Ala Phe Trp Tyr Gly Ser Thr Leu Val Leu Asp Glu Gly Glu Tyr Thr Pro Gly Thr Leu Val Gln Ile Phe Leu Ser Val Ile Val Gly Ala Leu Asn Leu Gly Asn Ala Ser Pro Cys Leu Glu Ala Phe Ala Thr Gly Arg Ala Ala Ala Thr Ser Ile Phe Glu Thr 385 390 395 400 Ile Asp Arg Lys Pro Ile Ile Asp Cys Met Ser Glu Asp Gly Tyr Lys Leu Asp Arg Ile Lys Gly Glu Ile Glu Phe His Asn Val Thr Phe His Tyr Pro Ser Arg Pro Glu Val Lys Ile Leu Asn Asp Leu Asn Met Val Ile Lys Pro Gly Glu Met Thr Ala Leu Val Gly Pro Ser Gly Ala Gly Lys Ser Thr Ala Leu Gln Leu Ile Gln Arg Phe Tyr Asp Pro Cys Glu Gly Met Val Thr Val Asp Gly His Asp Ile Arg Ser Leu Asn Ile Gln Trp Leu Arg Asp Gln Ile Gly Ile Val Glu Gln Glu Pro Val Leu Phe Ser Thr Thr Ile Ala Glu Asn Ile Arg Tyr Gly Arg Glu Asp Ala Thr Met Glu Asp Ile Val Gln Ala Ala Lys Glu Ala Asn Ala Tyr Asn Phe 530 540 540 Ile Met Asp Leu Pro Gln Gln Phe Asp Thr Leu Val Gly Glu Gly Gly 545 550 555 560 Gly Gln Met Ser Gly Gly Gln Lys Gln Arg Val Ala Ile Ala Arg Ala 565 570 575 Leu Ile Arg Asn Pro Lys Ile Leu Leu Leu Asp Met Ala Thr Ser Ala Leu Asp Asn Glu Ser Glu Ala Met Val Gln Glu Val Leu Ser Lys Ile Gln His Gly His Thr Ile Ile Ser Val Ala His Arg Leu Ser Thr Val 62Ō Arg Ala Ala Asp Thr Ile Ile Gly Phe Glu His Gly Thr Ala Val Glu Arg Gly Thr His Glu Glu Leu Leu Glu Arg Lys Gly Val Tyr Phe Thr Leu Val Thr Leu Gln Ser Gln Gly Asn Gln Ala Leu Asn Glu Glu Asp Ile Lys Gly Lys Cys Phe Phe Pro Ile Leu Val Leu Asp Ala Thr Glu Asp Asp Met Leu Ala Arg Thr Phe Ser Arg Gly Ser Tyr Gln Asp Ser 690 _____ 695 700 Leu Arg Ala Ser Ile Arg Gln Arg Ser Lys Ser Gln Leu Ser Tyr 705 710 715 Val His Glu Pro Pro Leu Ala Val Val Asp His Lys Ser Thr Glu Asp Arg Lys Asp Lys Asp Ile Pro Val Gln Glu Glu Val Glu Pro Page 124

Ala Pro Val Arg Arg Ile Leu Lys Phe Ser Ala Pro Glu Trp Pro Tyr 755 760 765 Met Leu Val Gly Ser Val Gly Ala Ala Val Asn Gly Thr Val Thr Pro 770 775 780 Leu Tyr Ala Phe Leu Phe Ser Gln Ile Leu Gly Thr Phe Ser Ile Pro 785 790 795 800 Asp Lys Glu Glu Gln Arg Ser Gln Ile Asn Gly Val Cys Leu Leu Phe 805 810 815 Val Ala Met Gly Cys Val Ser Leu Phe Thr Gln Phe Leu Gln Gly Tyr Ala Phe Ala Lys Ser Gly Glu Leu Leu Thr Lys Arg Leu Arg Lys Phe Gly Phe Arg Ala Met Leu Gly Gln Asp Ile Ala Trp Phe Asp Asp Leu Arg Asn Ser Pro Gly Ala Leu Thr Thr Arg Leu Ala Thr Asp Ala Ser Gln Val Gln Gly Ala Ala Gly Ser Gln Ile Gly Met Ile Val Asn Ser Phe Thr Asn val Thr Val Ala Met Ile Ile Ala Phe Ser Phe Ser Trp Lys Leu Ser Leu Val Ile Leu Cys Phe Phe Pro Phe Leu Ala Leu Ser Gly Ala Thr Gln Thr Arg Met Leu Thr Gly Phe Ala Ser Arg Asp Lys Gln Ala Leu Glu Met Val Gly Gln Ile Thr Asn Glu Ala Leu Ser Asn Ile Arg Thr Val Ala Gly Ile Gly Lys Glu Arg Arg Phe Ile Glu Ala Leu Glu Thr Glu Leu Glu Lys Pro Phe Lys Thr Ala Ile Gln Lys Ala Asn Ile Tyr Gly Phe Cys Phe Ala Phe Ala Gln Cys Ile Met Phe Ile Ala Asn Ser Ala Ser Tyr Arg Tyr Gly Gly Tyr Leu Ile Ser Asn Glu 1010 1015 1020 Gly Leu His Phe Ser Tyr Val Phe Arg Val Ile Ser Ala Val Val Leu Ser Ala Thr Ala Leu Gly Arg Ala Phe Ser Tyr Thr Pro Ser Tyr Ala 1045 1050 1055 Lys Ala Lys Ile Ser Ala Ala Arg Phe Phe Gln Leu Leu Asp Arg Gln
1060 1070 Pro Pro Ile Ser Val Tyr Asn Thr Ala Gly Glu Lys Trp Asp Asn Phe Gln Gly Lys Ile Asp Phe Val Asp Cys Lys Phe Thr Tyr Pro Ser Arg Pro Asp Ser Gln Val Leu Asn Gly Leu Ser Val Ser Ile Ser Pro Gly Gln Thr Leu Ala Phe Val Gly Ser Ser Gly Cys Gly Lys Ser Thr Ser 1125 1130 1135 Ile Gln Leu Leu Glu Arg Phe Tyr Asp Pro Asp Gln Gly Lys Val Met Ile Asp Gly His Asp Ser Lys Lys Val Asn Val Gln Phe Leu Arg Ser Asn Ile Gly Ile Val Ser Gln Glu Pro Val Leu Phe Ala Cys Ser Ile Met Asp Asn Ile Lys Tyr Gly Asp Asn Thr Lys Glu Ile Pro Met Glu 1185 1190 1195 120 Arg Val Ile Ala Ala Ala Lys Gln Ala Gln Leu His Asp Phe Val Met Ser Leu Pro Glu Lys Tyr Glu Thr Asn Val Gly Ser Gln Gly Ser Gln Leu Ser Arg Gly Glu Lys Gln Arg Ile Ala Ile Ala Arg Ala Ile Val

GC773-2-seqlist Arg Asp Pro Lys Ile Leu Leu Leu Asp Glu Ala Thr Ser Ala Leu Asp Thr Glu Ser Glu Lys Thr Val Gln Val Ala Leu Asp Lys Ala Arg Glu Gly Arg Thr Cys Ile Val Ile Ala His Arg Leu Ser Thr Ile Gln Asn Ala Asp Ile Ile Ala Val Met Ala Gln Gly Val Val Ile Glu Lys Gly Thr His Glu Glu Leu Met Ala Gln Lys Gly Ala Tyr Tyr Lys Leu Val Thr Thr Gly Ser Pro Ile Ser <210> 81 <211> 1279 <212> PRT <213> Homo sapiens <400> 81 Met Asp Leu Glu Ala Ala Lys Asn Gly Thr Ala Trp Arg Pro Thr Ser 10 15Ala Glu Gly Asp Phe Glu Leu Gly Ile Ser Ser Lys Gln Lys Arg Lys Lys Thr Lys Thr Val Lys Met Ile Gly Val Leu Thr Leu Phe Arg Tyr Asp Trp Gln Asp Lys Leu Phe Met Ser Leu Gly Thr Ile Met Ala Ile Ala His Gly Ser Gly Leu Pro Leu Met Met Ile Val Phe Gly Glu Met Thr Asp Lys Phe Val Asp Thr Ala Gly Asn Phe Ser Phe Pro Val Asn Phe Ser Leu Ser Leu Leu Asn Pro Gly Lys Ile Leu Glu Glu Glu Met Thr Arg Tyr Ala Tyr Tyr Tyr Ser Gly Leu Gly Ala Gly Val Leu 115 120 125 $11\overline{5}$ Val Ala Ala Tyr Ile Gln Val Ser Phe Trp Thr Leu Ala Ala Gly Arg 130 135 140 Gln Ile Arg Lys Ile Arg Gln Lys Phe Phe His Ala Ile Leu Arg Gln 145 150 155 160 15Ŏ Glu Ile Gly Trp Phe Asp Ile Asn Asp Thr Thr Glu Leu Asn Thr Arg Leu Thr Asp Asp Ile Ser Lys Ile Ser Glu Gly Ile Gly Asp Lys Val Gly Met Phe Phe Gln Ala Val Ala Thr Phe Phe Ala Gly Phe Ile Val 195 200 205 Gly Phe Ile Arg Gly Trp Lys Leu Thr Leu Val Ile Met Ala Ile Ser 210 215 220 Pro Ile Leu Gly Leu Ser Ala Ala Val Trp Ala Lys Ile Leu Ser Ala Phe Ser Asp Lys Glu Leu Ala Ala Tyr Ala Lys Ala Gly Ala Val Ala Glu Glu Ala Leu Gly Ala Ile Arg Thr Val Ile Ala Phe Gly Gly Gln Asn Lys Glu Leu Glu Arg Tyr Gln Lys His Leu Glu Asn Ala Lys Glu Ile Gly Ile Lys Lys Ala Ile Ser Ala Asn Ile Ser Met Gly Ile Ala Phe Leu Leu Ile Tyr Ala Ser Tyr Ala Leu Ala Phe Trp Tyr Gly Ser Thr Leu Val Ile Ser Lys Glu Tyr Thr Ile Gly Asn Ala Met Thr Val Phe Phe Ser Ile Leu Ile Gly Ala Phe Ser Val Gly Gln Ala Ala Pro

GC773-2-seqlist Cys Ile Asp Ala Phe Ala Asn Ala Arg Gly Ala Ala Tyr Val Ile Phe 355 360 _ 365 Asp Ile Ile Asp Asn Asn Pro Lys Ile Asp Ser Phe Ser Glu Arg Gly His Lys Pro Asp Ser Ile Lys Gly Asn Leu Glu Phe Asn Asp Val His Phe Ser Tyr Pro Ser Arg Ala Asn Val Lys Ile Leu Lys Gly Leu Asn Leu Lys Val Gln Ser Gly Gln Thr Val Ala Leu Val Gly Ser Ser Gly Cys Gly Lys Ser Thr Thr Val Gln Leu Ile Gln Arg Leu Tyr Asp Pro Asp Glu Gly Thr Ile Asn Ile Asp Gly Gln Asp Ile Arg Asn Phe Asn Val Asn Tyr Leu Arg Glu Ile Ile Gly Val Val Ser Gln Glu Pro Val Leu Phe Ser Thr Thr Ile Ala Glu Asn Ile Cys Tyr Gly Arg Gly Asn Val Thr Met Asp Glu Ile Lys Lys Ala Val Lys Glu Ala Asn Ala Tyr
500 505 510 Glu Phe Ile Met Lys Leu Pro Gln Lys Phe Asp Thr Leu Val Gly Glu
515 520 525 Arg Gly Ala Gln Leu Ser Gly Gly Gln Lys Gln Arg Ile Ala Ile Ala 54Ō Arg Ala Leu Val Arg Asn Pro Lys Ile Leu Leu Leu Asp Glu Ala Thr Ser Ala Leu Asp Thr Glu Ser Glu Ala Glu Val Gln Ala Ala Leu Asp Lys Ala Arg Glu Gly Arg Thr Thr Ile Val Ile Ala His Arg Leu Ser 59Ŏ Thr Val Arg Asn Ala Asp Val Ile Ala Gly Phe Glu Asp Gly Val Ile Val Glu Gln Gly Ser His Ser Glu Leu Met Lys Lys Glu Gly Val Tyr Phe Lys Leu Val Asn Met Gln Thr Ser Gly Ser Gln Ile Gln Ser Glu Glu Phe Glu Leu Asn Asp Glu Lys Ala Ala Thr Arg Met Ala Pro Asn Gly Trp Lys Ser Arg Leu Phe Arg His Ser Thr Gln Lys Asn Leu Lys Asn Ser Gln Met Cys Gln Lys Ser Leu Asp Val Glu Thr Asp Gly Leu Glu Ala Asn Val Pro Pro Val Ser Phe Leu Lys Val Leu Lys Leu Asn Lys Thr Glu Trp Pro Tyr Phe Val Val Gly Thr Val Cys Ala Ile Ala 705 Asn Gly Gly Leu Gln Pro Ala Phe Ser Val Ile Phe Ser Glu Ile Ile Ala Ile Phe Gly Pro Gly Asp Asp Ala Val Lys Gln Gln Lys Cys Asn
740 745 750 Ile Phe Ser Leu Ile Phe Leu Phe Leu Gly Ile Ile Ser Phe Phe Thr Phe Phe Leu Gln Gly Phe Thr Phe Gly Lys Ala Gly Glu Ile Leu Thr Arg Arg Leu Arg Ser Met Ala Phe Lys Ala Met Leu Arg Gln Asp Met Ser Trp Phe Asp Asp His Lys Asn Ser Thr Gly Ala Leu Ser Thr Arg Leu Ala Thr Asp Ala Ala Gln Val Gln Gly Ala Thr Gly Thr Arg Leu Ala Leu Ile Ala Gln Asn Ile Ala Asn Leu Gly Thr Gly Ile Ile 835 840 845 Ser Phe Ile Tyr Gly Trp Gln Leu Thr Leu Leu Leu Leu Ala Val Val

Pro Ile Ile Ala Val Ser Gly Ile Val Glu Met Lys Leu Leu Ala Gly Asn Ala Lys Arg Asp Lys Lys Glu Leu Glu Ala Ala Gly Lys Ile Ala Thr Glu Ala Ile Glu Asn Ile Arg Thr Val Val Ser Leu Thr Gln Glu Arg Lys Phe Glu Ser Met Tyr Val Glu Lys Leu Tyr Gly Pro Tyr Arg 915 920 925 Asn Ser Val Gln Lys Ala His Ile Tyr Gly Ile Thr Phe Ser Ile Ser Gin Ala Phe Met Tyr Phe Ser Tyr Ala Gly Cys Phe Arg Phe Gly Ala Tyr Leu Ile Val Asn Gly His Met Arg Phe Arg Asp Val Ile Leu Val Phe Ser Ala Ile Val Phe Gly Ala Val Ala Leu Gly His Ala Ser Ser Phe Ala Pro Asp Tyr Ala Lys Ala Lys Leu Ser Ala Ala His Leu Phe Met Leu Phe Glu Arg Gln Pro Leu Ile Asp Ser Tyr Ser Glu Glu Gly 1010 1015 1020 Leu Lys Pro Asp Lys Phe Glu Gly Asn Ile Thr Phe Asn Glu Val Val Phe Asn Tyr Pro Thr Arg Ala Asn Val Pro Val Leu Gln Gly Leu Ser Leu Glu Val Lys Lys Gly Gln Thr Leu Ala Leu Val Gly Ser Ser Gly Cys Gly Lys Ser Thr Val Val Gln Leu Leu Glu Arg Phe Tyr Asp Pro 1075 1080 1085 Leu Ala Gly Thr Val Leu Leu Asp Gly Gln Glu Ala Lys Lys Leu Asn Val Gln Trp Leu Arg Ala Gln Leu Gly Ile Val Ser Gln Glu Pro Ile Leu Phe Asp Cys Ser Ile Ala Glu Asn Ile Ala Tyr Gly Asp Asn Ser Arg Val Val Ser Gln Asp Glu Ile Val Ser Ala Ala Lys Ala Ala Asn Ile His Pro Phe Ile Glu Thr Leu Pro His Lys Tyr Glu Thr Arg Val Gly Asp Lys Gly Thr Gln Leu Ser Gly Gly Gln Lys Gln Arg Ile Ala Ile Ala Arg Ala Leu Ile Arg Gln Pro Gln Ile Leu Leu Leu Asp Glu Ala Thr Ser Ala Leu Asp Thr Glu Ser Glu Lys Val Val Gln Glu Ala Leu Asp Lys Ala Arg Glu Gly Arg Thr Cys Ile Val Ile Ala His Arg Leu Ser Thr Ile Gln Asn Ala Asp Leu Ile Val Val Phe Gln Asn Gly Arg Val Lys Glu His Gly Thr His Gln Gln Leu Leu Ala Gln Lys Gly Ile Tyr Phe Ser Met Val Ser Val Gln Ala Gly Thr Gln Asn Leu <210> 82 <211> 1280 <212> PRT <213> Homo sapiens <400> 82

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405 410 415 Val Gln Ser Gly Gln Thr Val Ala Leu Val Gly Asn Ser Gly Cys Gly 425 Lys Ser Thr Thr Val Gln Leu Met Gln Arg Leu Tyr Asp Pro Thr Glu 440 Gly Met Val Ser Val Asp Gly Gln Asp Ile Arg Thr Ile Asn Val Arg 450 455 460 Phe Leu Arg Glu Ile Ile Gly Val Val Ser Gln Glu Pro Val Leu Phe 470 Ala Thr Thr Ile Ala Glu Asn Ile Arg Tyr Gly Arg Glu Asn Val Thr 485 490 Met Asp Glu Ile Glu Lys Ala Val Lys Glu Ala Asn Ala Tyr Asp Phe 500 510 Ile Met Lys Leu Pro His Lys Phe Asp Thr Leu Val Gly Glu Arg Gly 520

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Val Phe Asn Tyr Pro Thr Arg Pro Asp Ile Pro Val Leu Gln Gly Leu 1045 1050 1055 Ser Leu Glu Val Lys Lys Gly Gln Thr Leu Ala Leu Val Gly Ser Ser Gly Cys Gly Lys Ser Thr Val Val Gln Leu Leu Glu Arg Phe Tyr Asp 1075 1080 1085 Pro Leu Ala Gly Lys Val Leu Leu Asp Gly Lys Glu Ile Lys Arg Leu Asn Val Gln Trp Leu Arg Ala His Leu Gly Ile Val Ser Gln Glu Pro Ile Leu Phe Asp Cys Ser Ile Ala Glu Asn Ile Ala Tyr Gly Asp Asn 1125 1130 1135 Ser Arg Val Val Ser Gln Glu Glu Ile Val Arg Ala Ala Lys Glu Ala Asn Ile His Ala Phe Ile Glu Ser Leu Pro Asn Lys Tyr Ser Thr Lys Val Gly Asp Lys Gly Thr Gln Leu Ser Gly Gly Gln Lys Gln Arg Ile Ala Ile Ala Arg Ala Leu Val Arg Gln Pro His Ile Leu Leu Leu Asp Glu Ala Thr Ser Ala Leu Asp Thr Glu Ser Glu Lys Val Val Gln Glu Ala Leu Asp Lys Ala Arg Glu Gly Arg Thr Cys Ile Val Ile Ala His Arg Leu Ser Thr Ile Gln Asn Ala Asp Leu Ile Val Val Phe Gln Asn Gly Arg Val Lys Glu His Gly Thr His Gln Gln Leu Leu Ala Gln Lys 1250 1260 Gly Ile Tyr Phe Ser Met Val Ser Val Gln Ala Gly Thr Lys Arg Gln

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GC773-2-seqlist 200 Asp Ile Arg Gln Gln Asn Ile Glu Glu Asn Met Thr Ile Ala Met Glu 210 215 220 Glu Ala Pro Glu Ser Phe Gly Gln Val Val Met Leu Tyr Ile Asn Cys 230 235 240 Lys Val Asn Gly His Pro Val Lys Ala Phe Val Asp Ser Gly Ala Gln 250 255 245 Met Thr Ile Met Ser Gln Ala Cys Ala Glu Arg Cys Asn Ile Met Arg 260 265 Leu Val Asp Arg Arg Trp Ala Gly Ile Ala Lys Gly Val Gly Thr Gln
275 280 285 Lys Ile Ile Gly Arg Val His Leu Ala Gln Val Gln Ile Glu Gly Asp 295 300 Phe Leu Pro Cys Ser Phe Ser Ile Leu Glu Glu Gln Pro Met Asp Met 310 315 Leu Leu Gly Leu Asp Met Leu Lys Arg His Gln Cys Ser Ile Asp Leu 325 330 335 Lys Lys Asn Val Leu Val Ile Gly Thr Thr Gly Ser Gln Thr Thr Phe 340 345 350 Leu Pro Glu Gly Glu Leu Pro Glu Cys Ala Arg Leu Ala Tyr Gly Ala 355 360 365 Gly Arg Glu Asp Val Arg Pro Glu Glu Ile 370 375 <210> 84 <211> 78 <212> PRT <213> Homo sapiens <400> 84 Gln Thr Gly Pro Ser Val Thr Val Thr Cys Thr Glu Gly Lys Trp Asn
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Asp Pro Glu Pro Gly Arg Leu Leu Cys Gln Ala Gln His Glu Arg His 115 120 125

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His Cys Val Leu Ala Gly Met Lys Ala Leu Trp Asn Ser Ser Val Pro

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410
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Pro Pro Pro Asp Ile Arg Asn Gly Lys His Ser Gly Gly Asp Gln Glu
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